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Foreign Correspondence.

VIENNA, February 29, 1872.

DEAR DOCTOR:

A few days ago we received a copy of the Chicago Evening Post, containing the notice of the commencement exercises of Rush Medical College, with the usual number of graduates. By the time I return to Chicago, I expect to see the "Old Rush" rebuilt and in full operation again, to welcome all who may seek knowledge within its walls.

You will remember I told you that I was going to Prague; so I did. Upon arriving in that city I immediately went to the Hospital College buildings. Making inquiries concerning the lectures, etc., I discovered that Prague was, at present, a "one-horse" concern. Stating my opinion to Dr. Walenta who is now residing in that city, the doctor admitted its truth, and could not conscientiously ask me to stay in Prague.

In 1848 the University of Prague was in its glory; since then its light has waned, and now only flickers.

Whilst in Prague I became acquainted with Dr. Tiefdrung, physician to ex-Emperor Ferdinand. The duties of the physician

are, to visit the ex-monarch three times a week; in case of sickness he may be required to remain through the night. The remuneration consists in free dwelling in the castle, fuel, and 1,600 florins ($800) per annum.

After seeing the sights of Prague, I started for Vienna. Freeing myself from the clutches of a hackman, I arrived at the General Hospital in which the lectures and clinics are conducted. It is an immense structure, enclosing and dividing a large space of ground into several gardens or yards, the largest of these being about the size of a Chicago block.

The building contains over 100 wards of about 40 x 80 feet each, with 2,500 beds. There are sixty single rooms for patients that are able to pay for the superior accommodations therein offered. About 25,000 house patients are treated annually.

Connected with the General Hospital is the lying-in hospital for Lower Austria. A part of this is used for the education of midwives; the larger part, in which about 6,000 births take place annually, for the medical student. Adjacent, is also the hospital for the insane.

The Faculty is composed of regular (ordinary) professors, and irregular (extraordinary) professors and docents, the latter being for the greater part assistants to the professors, and the whole forming a small army.

A systematic course of lectures is given only by the following professors: Prof. Hyrtl, anatomy, descriptive, topographic. Prof. Brucke, physiology. Prof. Rokitansky, pathology. The other lectures are delivered by some of the docents.

The following professors simply conduct their respective clinics: Prof. Braun, obstetrics and diseases of women; Billroth and Dumreicher, surgery; Hebra, dermatology; Arlt and Jaeger, ophthalmology; Duchek, medical clinic. (The vacancies produced in the medical clinics by the death of Oppolzer, and resignation of Skoda, are at present only temporarily filled.) Profs. Sigmund and Zeissl, syphilis. Each of the above professors has his corps of assistants.

Other clinics, as for chronic nervous diseases, diseases of the larynx, chest, etc., to be treated by special means, as electricity, inhalation, etc. Also, two clinics for diseases of the ear, conducted by Profs. Gruber and Pollitzer.

The number of students and doctors attending the hospital is probably between 1,000 and 1,500; I could not inform myself of the exact number. A large proportion of these are foreigners, i. e., non-residents of Austria; and America furnishes its share of the latter. Two young ladies—one an American, the other a Prussian—are also attending, and seem to feel quite at home among the young men.

What makes Vienna so attractive to foreigners? It cannot be its great men, for from them you derive little or no benefit. Take, for instance, the great Rokitansky, the father of pathology, who is favorably known wherever pathology is studied and taught; he is neither a lecturer nor teacher, his class is small, composed of those students who are obliged to get his ticket in order to graduate. You cannot understand a word of his lecture unless you are within four or five feet of his chair. One of his assistants gives short courses on pathology, but it is hurried over so, that you simply have specimens—often rare ones, it is true—shown to you with a meagre description. The practical department also lacks a good teacher, and were a "lesser" in the place of the "great," it would be all the better for those who come to learn. "Material" is, of course, abundant, for this as well as other purposes.

Prof. Braun, of the lying-in department, is no lecturer and not much of a teacher, although a thoroughly competent man to attend to his patients, practically.

Hebra, the great dermatologist, simply conducts his clinic and occasionally gives vent to his humor at the expense of his patients, which is more amusing than instructive.

Hyrtl, the anatomist, is certainly the most popular among the professors, if I am to judge by the number of his hearers. He is a fluent, agreeable lecturer, as well as a good instructor. An acquaintance thinks him equal to Prof. Ford, of Ann Arbor.

The amount of material for clinical purposes is, of course, large, and is used (and abused) freely and to good advantage so far as the student is concerned.

Syphilitic and skin disease patients are brought into the lecture room without even the fig leaf. The females are also fully exposed, and obliged to allow all that may wish, to examine them.

At the lying-in hospital, patients are received every evening. The assistant examines them for the purpose of ascertaining their

condition, then about twenty students will each, in turn, examine the same woman, she being obliged to submit. From the time of her admission until her confinement, she may be called upon several times to allow herself to be examined for purposes of instruction.

For the parturient room twelve students are allotted to act as practicant (practitioner), this number being changed every twenty-four hours, thus giving the students an opportunity to obtain a practical knowledge of obstetrics. *Some* examining is done, of course. If a case of unusual interest occurs, it is reserved until the lecture hour and brought before the class, then delivered of her fruit either by manual or instrumental assistance as the case may demand.

A peculiar, and perhaps the most attractive feature of this institution consists in the so-called private courses. These courses are generally given by the docents, are from five to eight weeks in duration, being twenty-five to forty hours, one hour each day, and are given upon almost every subject connected with medicine.

To illustrate: upon percussion and auscultation, laryngoscopy, ophthalmoscopy, electrotherapeutics, examination of urine, hydrotherapeutics, syphilis, surgical operations, bandaging, operations on the eye, obstetrical operations, etc., etc. The courses are thoroughly practical, and mostly intended only for the advanced student or physician.

A clinic for diseases of children is given at St. Anna's Children's Hospital, being divided into medical and surgical. Also, a clinic for diseases of infancy (as old as two months,) at the Foundling's Home.

At the General Hospital, mercury is very freely used, chiefly by inunction, for the treatment of syphilis, whereas at another hospital it is discarded altogether, the physicians of the latter asserting that mercury produces all those difficulties usually ascribed to syphilis.

Whilst Hebra is a unicist, the professors of the syphilitic department proper are dualists in reality, although they acknowledge but one poison, the syphilitic, which produces the chancre; but will not recognize a chancroid, "it either is, or is not, a chancre," they don't want things mixed, the chancroid of the French being called a foul ulcer that may be produced by the inoculation of pus taken from any ulcer that has been irritated. Syphilization is not countenanced.

Dr. Lastorfer, of this city, has for the last eight months been engaged in examining the blood of syphilitics, and found that by placing a drop on a microscopic slide, keeping this in a moist chamber, in about twenty-four hours a hyaline body, round, one-third the diameter of the blood globule, would be developed, whilst the blood of non-syphilitics would in no case show this; also, that these bodies became, less as the cure progressed under the proper treatment. But now came Prof. Hebra, and said that he had found these bodies in the blood of variola patients. Then came Prof. Wedl: he had found them in the blood of almost all persons; and that which promised much was blown to the winds.

To-day I heard that Dr. Bumstead, of New York, is visiting the hospital, but as I do not know him I may have met him without knowing it.

In about three weeks I expect to leave here. The summer I intend to spend in Berlin, the course being little more than two months in duration. Should I find anything of interest in Berlin I will write.

Yours, H. TOMBOCKEN.

Selections.

The Process of Decomposition. An abstract from Caspar's Handbuch der Gerichtlichen Medicin. Berlin, 1871.

In No. 10 of *The Clinic* we endeavored to lay before its readers, concisely, the views of Caspar on the signs of death, as developed in his exhaustive work on medical jurisprudence, leaving the consideration of the process of decomposition, with reference to the time of death, for a separate article.

We will now turn our attention to this subject. Caspar says it is surrounded with many difficulties. It is not easy to describe, by mere words, the various changes in color and consistency of organs which the corpse undergoes, and in view of the many agents that affect the process of decomposition anything like a general rule can be laid down only with great caution. He thinks it is scarcely an exaggeration when Orfila says that "it is beyond the powers of

man" to determine the time of death in corpses that have undergone decomposition. And yet, Devergie says of his subordinates in the Paris Morgue, and Caspar has noticed the fact himself in Berlin, that men without any culture whatever, acquire, by mere routine, a judgment in this matter, which, in general, is quite correct; whence our author argues it must be possible to do it still more accurately by employing scientific means. Whilst appreciating the labors of Orfila, Lesueur, Guntz and Devergie,* he censures them for devoting too much attention to trifling details, making their works practically worthless for the medical jurist.

INTERIOR CONDITIONS OF DECOMPOSITION.

The causes which modify the process of decomposition, by either hastening or retarding it, so that the corpse of A may in from 24 to 36 hours present the same appearance as the corpse of B in from three to four weeks, must be sought in the individual, or *externally*. As a matter of course, decomposition itself is possible only through exterior influences. Fresh flesh, hermetically sealed, does not decompose.

Individually, the process of decomposition is modified—

1. By *age*. Caspar admits what all authors maintain, that *neo-nati, cet. par.*, undergo decomposition more rapidly than other corpses. Still, we have to take into consideration the fact not noticed by any other writer, that they are nearly all found naked immediately after birth, or at most, enveloped in a few rags, having been exposed, or thrown into the water, into vaults, or hidden in manure or rubbish; whilst naked corpses of a greater age are almost exclusively only those of persons drowned. But the influence of clothing in retarding the process of decomposition is very essential.

2. *Sex*, according to Caspar, has no influence. But he has noticed that the corpses of women, who died immediately after parturition, decomposed very rapidly, no matter what was the cause of death.

3. The *constitution* has a very decided influence. Fat, spongy and lymphatic bodies undergo decomposition far more rapidly than bodies lean and dry, because an abundance of liquids favors the process. In the corpses of the aged this process is retarded, probably, because they are generally lean and dry.

4. *The mode of death* has a marked effect on the process of decomposition. It occurs much later after the sudden death of healthy persons than in persons dead of diseases which exhaust

* Orfila u. Lesueur, Handb. z. Gebr. f. Gerichtl. Ausgrabungen, Leipzig, 1832–35.
Guntz, der Leichnam des Nengeborenen, Leipzig, 1827.
Devergie I, p. 88—253.

the system; such as typhus, dropsy following organic lesions, or tuberculosis. Mutilated bodies, and those of persons killed by repeated acts of violence, by mechanical force, on railroads, etc., decompose rapidly. Excepted from this rule are the bodies of persons that were killed by the falling of walls; the stones, rubbish, or sand with which they remained covered, preventing a direct contact with the air. Persons suffocated by smoke, carbonic oxide gas, or sulphuretted hydrogen, decompose rapidly. After death from narcotic poisons, decomposition is accelerated. This is much less the case after other poisons, and especially phosphorus. Where the blood was poisoned by alcohol, i. e., in cases of drunkards who died of apoplexy, in a state of intoxication, Caspar observed that the corpses retained their freshness for a remarkably long time.

It is worthy of notice, finally, that after poisoning by sulphuric acid the process of decomposition is decidedly retarded, probably because the acid prevents the formation of ammonia, or continues to neutralize the ammonia formed by decomposition. After poisoning by arsenic decomposition occurs according to the ordinary laws, but it is well known that it is interrupted in its course by the process of mummification, of which more hereafter.

We ought to remember, however, that, although the foregoing statements are generally correct, there must be still other causes, as yet unknown, which hasten or retard decomposition.

As cases in point, the following are cited by Caspar:

On March 18th, 1848, two men suffered the same death, by gunshot wounds, at the same time, on the barricades in Berlin. Nevertheless, the signs of decomposition were dissimilar. At another time, a man and a woman, both aged between 50 and 60 years, died the same night from suffocation by carbonic oxide gas. Four days after, the man's corpse was quite green on the abdomen and back, whilst that of the woman, though remarkably fat, was, internally as well as externally, quite fresh.

EXTERIOR CONDITIONS OF DECOMPOSITION.

The exterior conditions have a more decided effect on decomposition than the interior. They are air, water and heat.

a. Atmospheric air. Everything that favors or hinders its access to dead animal (as well as vegetable) substances, hastens or retards the process of decomposition. Helmholz* has shown that no decomposition takes place in flesh that is in contact with water cleared by boiling and air conducted through red-hot tubes, until all organic germs are destroyed. The oxygen of the atmospheric air is, consequently, the chief condition of decomposition. Corpses remaining in the open air decompose much more rapidly than

* Erdmann u. Marchner, *Journal d. Pract. Chemi.*, Bd. 31, s. 420.

those that are buried, and even than those lying in water. Decomposition sets in sooner in naked or lightly clothed corpses than in those that are completely dressed, especially if the clothes are tight and but little permeable.

The access of air may be obstructed or favored by the composition of the earth. If it is light and porous, decomposition will commence sooner than if it is moist and dense. But here a great deal must be ascribed to the action of water, because light earth (sand) is at the same time dry, whilst moist earth (clay) is naturally damp. So, too, corpses decompose sooner in shallow graves than in those of great depth. It is further important to consider the cover that surrounds the corpses in the earth, which is well shown by Orfila. Every body knows how soon coffins of common pine are destroyed, and, with them, the corpses; whilst the great men of former times, buried in coffins of hard wood, tin or stone, were preserved for an uncommonly long period. On the contrary, corpses that were buried in an entirely nude state decompose very rapidly.

b. Water. Without water and watery vapor no decomposition takes place. But the water of the corpse itself is sufficient. It gradually evaporates, and, eventually, bursts the walls of the abdomen, of the thorax, and, finally, even the bones of the skull, and the corpse macerates in its own liquids. Before this time, however, maggots and larvæ make their appearance on the surface, at first on the eyelids, ears, vulva and groins, until their number is increased to myriads, and the complete and total destruction of all the soft parts follows.

But in proportion as water without has access to the corpse, decomposition will be more rapid, and *vice versa.*

c. Heat. A high degree of heat, alone, causes the liquids of the body to evaporate, and favors the very opposite of the process of decomposition, i. e., the drying up if not roasting of the corpse, as we see it in combustion. Ordinary heat, however, when combined with air and humidity, favors decomposition. It is well known that a corpse will decompose more rapidly in summer than in winter. Bodies that at a summer temperature of 16 to 20° R. are still in a good state of preservation, may, in the course of 24 hours, become entirely unfit for dissection, whilst in water, at a temperature of from 5 to 8° R. this will not be the case for 10 or 12 days. The difference of temperature is exceedingly remarkable in the case of water. If the corpse freezes in water (or humid earth) it will be preserved for a long time, even for thousands of years, as is shown by the mammoth, exhumed in Siberia, and now to be seen in the Museum of the University at Moscow, though the remains of the tissues are partly saponified. In winter, a corpse taken from water showing a temperature of from 2 to 6° R. 10 to 12 days after death, may still be so well

preserved as to enable an examiner to demonstrate the signs of death from suffocation, which in summer, at a temperature of from 18 to 20° R. is often impossible after 5 to 7 days; and here, another circumstance must be considered. It is well known, that the temperature of the water is lower, under its surface, than on it and in the superior strata, because the rays of the sun strike only these. Decomposition will, therefore, be accelerated when the corpse is on the surface, and retarded when it remained at the bottom. Another point that must not be overlooked is this, that a corpse, taken from the water and exposed to the air, will decompose with exceeding rapidity. The progress will be greater in one day than it would have been in three or four days, had the corpse remained in the water. So, too, a higher or lower degree of the temperature of the earth affects decomposition. Corpses buried in shallow graves, will, therefore (as also for the reason given above under *atmospheric air*) decompose more rapidly than those in deep graves.

COMPARISON OF THE SIGNS OF DECOMPOSITION ACCORDING TO THE MEDIA.

Caspar says it is perplexing for the practitioner to divide the process of decomposition into stages according to the different media, as has been done by Orfila, Devergie and Guntz, and he thinks it is superfluous, because this process is, in all cases, one and the same from the first moment to the last, modified only by the media and all the various conditions heretofore enumerated. It appears, to him, more judicious to set up a general criterion regarding all three media, i. e., air, water and earth, leaving the effect of the other conditions to be considered in each given case. Aware of the difficulty of setting up such criterion, yet from his large experience he does not believe he departs from the truth in announcing the following doctrine: *the average degree of temperature being about equal, a corpse exposed to the open air for one week (or month), exhibits the same degree of decomposition as a corpse that remained in water two weeks (or months) and one that was buried in the earth in the usual way, for eight weeks (or months).*

The same degree of decomposition will therefore, *cet. par.*, be shown by three corpses of which *a* has been exposed to the air, e. g., on the ground, for a month; *b* was drowned two months ago; and *c* has been dead and buried in an ordinary coffin for eight months. A due regard for this rule and a proper intimation of the circumstances of each specific case, will avoid *essential* errors.

SUCCESSIVE CHANGES OF THE CORPSE, EXTERNALLY.

1. The first sign is the well known greenish color of the walls of the abdomen, on the appearance of which the odor of decom-

position is noticed. It occurs in from twenty-four to thirty-six hours. (The exception in the case of persons found drowned will be referred to hereafter.)

2. In the same time, the eye-balls soften, and yield to the pressure of the finger.

3. In from three to five days after death this green color becomes more marked and covers the entire abdomen, including the exterior sexual organs. In the latter, it assumes, in both sexes, a rather brownish-green, dirty appearance from the start. In a great many corpses, especially in cases of suffocation, sanguineous, frothy liquids, with air-bubbles, ooze from nostrils and mouth. At the same time, green spots appear, with great topical irregularity, on other places, especially on the back, the lower extremities, the neck, and lateral portions of the thorax.

4. In from eight to twelve days after death this discoloration, with which the odor keeps even pace, has covered the entire body and become darker. In some places, especially on the face and on the entire neck down to the breast, the color, even at this stage, is reddish-green, the decomposed blood having extravasated into the cellular tissue. Putrid gases are developed, and inflate the abdomen. These are (but not in all cases) combustible gases, sulphuretted and phosphuretted hydrogen. On making an incision in the walls of the abdomen, the gas which escapes, will, on lighting it, burn for a considerable time, with a small flame. This takes place, almost without exception, with the gas proceeding from the scrotum. The cornea has become concave, but the color of the eyes may still be recognized, whilst it is no longer possible, in all cases, to determine whether the pupils of the immature fœtus are open or not. The *sphincter ani* is open. In some places of the corpse, especially on the extremities, on the neck and breast, cutaneous veins of a dirty red may be seen through patches of skin of a lighter color. The nails are still firm.

5. In from 14 to 20 days after death, the color of decomposition has everywhere become green, like the color of the frog, and bloodred-brown. The cuticle, in some places, is raised in blisters of the size of a walnut; in others, patches as large as a plate, and still larger, are entirely detached. Innumerable maggots cover the body, seeking especially the folds of the skin and the natural cavities. The evolution of gas has increased to such an extent, that the abdomen looks like a large ball, the thorax is artificially raised, and the entire cellular tissue presents the appearance of inflation. The corpse resembles that of a giant. The features can no longer be distinguished, and even intimate friends find it difficult to recognize the body; for the lids, the lips, the nose and the cheeks appearing much swelled, the physiognomy is naturally entirely different. The color of the eyes can no longer be distin-

guished, because the eye-ball (iris and pupil being obliterated) shows in all such corpses, without exception, a uniform dirty-red color in the entire extent of the sclerotica. In men, the penis has become enormously large, and the scrotum may reach the size of a child's head. The nails are detached with their roots, and may be easily pulled from the limbs. The scalp comes off readily.

Temperature is an important condition in bringing about this high degree of decomposition. Taking the extremes of temperature, it may be said, that 16 to 20° R. in summer, will have the same effect in from 8 to 10 days as 0 to 8° R. in winter in from 20 to 30 days. We mentioned that at this stage of decomposition the corpse is covered with maggots. But where it was exposed to the open air or had lain in the water, it is not uncommon to find that it has been a prey to other animals, especially rats, but also dogs, cats, birds of prey, foxes and wolves. The evidences of such voracity are found on the chest and abdomen which frequently have been opened; and on the extremities, which, in many places, appear as if dissected down to the bones. A little attention will prevent us from confounding such lesions with *traumatic effects*. Finding a corpse in the condition just described, we may affirm with some degree of certainty, that the individual has been dead *at least* as long as above stated, but not that it could not have been dead longer, for this stage of decomposition differing thus from former stages, continues, generally, many weeks, even a few months, and but very gradually proceeds to the following stage: *Corpses in a state of putrescence, of a green color, inflated and excoriated, found one month after death, cannot well, cet. par., be distinguished from similar corpses found in from three to five months after death.*

6. The stage of putrid colliquation begins in from four to six months after death; in corpses lying in warm and humid media, even sooner. The constant evolution of gas has opened the cavities of the chest and abdomen. Often the bones of the skull, too, have yielded in the sutures and the brain has escaped. All the soft parts are in a state of pap-like solution, or have been partly dissolved and consumed. Entire bones, especially those of the skull and extremities, are bare. Those of the extremities are often, even at this stage, detached at the joints; the fasciæ and ligaments being destroyed. No trace of the physiognomy can be recognized. The existence of mammæ can no longer be determined, and since the external sexual organs have also disappeared, the sex of the individual can be known from the exterior *habitus* only in case the hair of the pudenda is still visible, which is often the case. As is well known, in a female, this hair is strictly confined to the *mons veneris*, in the male it extends to the *umbilicus*. According to Schulze, exceptions to this rule are not rare.* It is also still possible to determine the sex by searching for a *uterus*.

[To be concluded.]

* Jenaische Zeitschrift, Bd. iv. Heft 2, S. 312.

Constriction of the Penis by a Wedding Ring. By M. DUMAREST, M.D., (Lyons). Interne des Hopitaux. From the Lyons Medicale.

G——, married, aged 59. Entry Sept. 27, 1871. Eight days before entry, with a design at least original, he introduced his penis into his wedding ring. The ring was imbedded behind the glans and prepuce. The prepuce was in the condition of paraphymosis and the constriction of the ring had produced an ulceration of unequal depth; it was very deep on the upper surface of the penis, superficial over the urethra on the under surface. Micturition was difficult but still possible.

The ring was divided in three segments, subsequent cicatrization was rapid; two days afterwards he left the hospital almost cured.

In this patient notwithstanding the violence and long duration of the constriction, though there was ulceration, there was no gangrene. Gangrene of the penis from mechanical cause is very rare, whether the cause be artificial constriction or by paraphymosis. In truth ulcerations from a ligature of the penis, ulceration not only of the dorsum but of the much more resistant under surface, ulceration so extensive as to produce urethral fistula may exist and yet gangrene will not ensue. M. Laroyenne, notably, has seen two cases of ulceration of this kind in children fearful of punishment who tied the penis to avoid wetting the bed. Our patient is a proof that sphacelus does not present as easily as most of the authors claim.

It is useless to add that fatal mortification of the penis may ensue if the constriction be of long duration and excessively violent. As to paraphymosis it is generally admitted that it may be easily complicated with gangrene; far from being true, this complication is extremely rare. M. Laroyenne has never observed it. In all cases it easily produces ulcerations of the prepuce and furrow. This ulceration may cause the most serious dangers on the under surface, if it involve the urethal canal. It may be the point of departure of an urethral fistula, or indeed of an immediate urinary infiltration, or, finally, of a future stricture. But the circulation is extremely rarely sufficiently arrested at the outset to induce, by the sole fact of constriction, mortification of the glans or the cavernous body. M. Demarquay* and many others with him are wrong, then, in admitting its frequency, with either phymosis or paraphymosis.

Cases of ligation or constriction of the penis by foreign bodies are not rare. A few are encountered everywhere. We cite a few as follows:

* Archives de Med., 1870.

M. Demarquay has reported two; the first was published by M. Leteinturier, of Havre. The introduction of the penis into a ring was followed by mortification of the skin of the entire penis and the anterior part of the scrotum. The patient was a peasant who had used this token of love from his mistress in this way as a charm.

The second was that of Bourgeois* who did not hesitate to remove a portion of the corona glandis to facilitate the detachment of the constricting ring. It was a radical procedure: the patient was released from it with a few eschars upon the prepuce and the dorsum penis from which he recovered in two months.

Nat. Guillot reported the case of a baker who in the first months of marriage permitted his wife to pass over the penis the bond which she had carried on her finger. This ring was gold, and a pharmaceutist conceived the ingenious idea which released the patient. He dissolved it in a bath of mercury.

M. Guibout, in 1868, communicated to the Societe des Hopitaux the case of a man of more than 60 years of age who had introduced his penis up to the root in *seven* rings of copper, very small and very strong, "to procure," as he said, "a few moments of pleasure." These rings remained in place eleven hours. The penis had become hard, cyanosed, extremely turgid, and of gangrenous hue. After a thousand efforts the seven rings were successively divided. In eight days every local trace had disappeared.

Two well known cases we finally cite: the one of a soldier in whom Larrey found the penis fastened in the socket of his bayonet, and the other that of the bather found suspended by the penis from the cock of his bath tub.—*The Clinic.*

Clinical Lecture on Infantile Paralysis and its Resulting Deformities. By RICHARD BARWELL, F.R.C.S., Surgeon to Charing-Cross Hospital.

GENTLEMEN: Before showing you one or two cases and reading to you certain short extracts from my note-book, it seems desirable that I should define the class of malady which I intend to bring before you. Infantile, like adult, life is liable to certain diseases of the brain and spinal cord which result in loss of power in one or more limbs. But, besides these, the infant is subject to a form of paralysis unattended by any symptom of illness—certainly of severe illness; and this, the class of case I propose for your study, being peculiar to the infant, alone deserves the name of "infantile

* Mem. de l'Acad. Roy. de Chirurg., vol. I.

paralysis." Other paralytic maladies, whether occurring in senility, in the prime, or in infancy, should be classed in the categories of meningitic, myelitic, lead-poisoning, traumatic, or other form of disease. But to enable us to separate one thing from a heap of others, we must have means of recognizing that single object whenever we may see it. Hence there devolves on me the ungrateful task of making a definition out of mere negatives; for the typical, and, in my experience, the common, form of the disease is, that the child should be put to bed perfectly well at night, and next morning be taken up with loss of power over a limb or part of a limb, yet otherwise quite well or only very slightly ailing.

For example: This child, Eva H., aged 13 (March, 1871), looks extremely healthy, except that she is lame from paralysis of the left leg. Her mother, an intelligent, clear-headed woman, says: "When she was about eighteen months old I took her out of bed one morning and put her on the floor to walk. She tumbled down. I thought she was stupid, and put her on her feet again. She fell at once, and I then found her leg was paralyzed. She was not at all ill or fretful, either the night before or that morning; but I think that side of her body was perhaps a little tender."

Agnes P., whom you have often seen, was, when she first came, nine months old, a plump and as healthy a baby as ever I saw, except loss of power in the deltoid of the right arm. The mother says: "Two months ago I took the baby out of bed, and it did not move the arm. I showed it to the doctor, and he said the child must have been hurt. I do believe the girl I had then lifted it up by the arm; but the baby did not cry either the night before or that morning more than usual. She always cried when she was being undressed and washed. I observed no difference in that, and she seemed quite well."

One more history from my note-book:

Louisa R., brought to me in April, 1870, when seven years and a half old, with foot deformity resulting from paralysis. Her mother, an active-minded and very acute woman, says that one very hot day, when the child was about eight months old, she was put asleep under a tree on the lawn, and on a damp cushion. The next day she was taken up with the right leg paralyzed. The child had not then any sign of illness whatever, and always has been, with that exception, a strong, healthy girl.

Of such cases and histories I could give you almost an unlimited number. Some attacks may have been preceded for an hour or two, perhaps even for a day or two, by some slight disturbance, fretfulness, a hot skin or mouth, even a slight convulsion. On the morning of the discovery there may be some evidence of pain in the affected limb, some feverish disturbance, and the disease itself may affect a larger or smaller portion of the body. But the more the history and concomitants depart from the type which I have

given above, the more any disturbance approaches absolute illness —especially if convulsions have been frequent and severe—the more the stricken regions resemble the relationship of hemiplegic or paraplegic parts, the more likely is the case to be an example of myelitis or meningitis, and the less likely to belong to the pure infantile paralysis, which, as you have seen, does not exhibit a single symptom of central nervous disease.

I feel bound to insist strongly on this distinction, because medical opinion has of late years more and more agglomerated around the idea, fallacious in origin and in result disastrous, that all these cases are dependent on cerebral or spinal disease. Heine, Fliess, Laborde, Radcliffe, and many others, have upheld this notion; and I must shortly point out what essential differences separate this disease from spinal affections. But first, as to pathological appearances. Only seven cases of anatomical investigations have been published. In four of these nothing was detected; in one, that of Dr. Fliess (*Journal fur Kinderkrankheiten*), was found a congestion which, emanating from the gums of the teething child, was continued on to the membranes of the cord. It need hardly be pointed out that the preconceived ideas which aided this description are more easily comprehensible than the anatomy of the congestion. To the other two post-mortem examinations I must unfortunately also take exception, for the two cases which form the groundwork of Dr. Laborde's treatise, "La Paralysie (dite Essentielle) de l'Enfance," are cases respectively of myelitis and meningo-myelitis, with their characteristic histories and symptoms, and do not belong to the disease under consideration. The absence of illness and of danger to life renders it improbable that morbid anatomy will ever furnish a clue to the causality of this disease; we must, at all events for the present, be content with studies from life.

The children we have now to do with are not ill, have no severe convulsion, insensibility, nor pain; therefore no disease marked by severe symptoms, such as myelitis or meningitis, can be present. But a congestion of the cord does not give rise to any attack of such suddenness and severity; it may also be supposed to vanish at death after having produced paralysis in life. There is, too, a certain similitude between congestive and infantile paralysis—such as immunity of the respiratory muscles, bladder, and rectum. Nevertheless, when the condition of a patient with congestion of the spinal cord is compared with a case of infantile paralysis, the observer will not fail to mark a vast difference between the plump limber limbs of the one, and the cold, shriveled, flaccid muscles of the other.

A further investigation into the condition, more especially by various modes of electricity, will render prominent other and more radical differences. A rapid view may best be given by arranging these into opposite columns.

Spinal Congestion.*	Infantile Paralysis.
Paralysis incomplete—always at first, and generally throughout the case; it tends, however, to deepen.	Nothing can be more utter and entire than the loss of power at the very commencement; it tends, however, to lighten.
Generally paraplegic in form at the end, if not at the beginning. Usually one leg is attacked first, then the other. The malady becomes more extensive as it goes on.	Paraplegic form is not usual at the commencement, still less afterwards. When the disease has attacked one part, it never subsequently affects another. It is most extensive at its commencement.
Tingling in fingers and toes.	I have never been able to detect the slightest sign of pain or discomfort. In a few cases there is a little and a doubtful increase of sensibility to touch.
Shortness of breath not infrequent.	No alteration ever observed in breathing.
Fluctuations towards better and worse occur in all cases; sometimes these are rather frequent.	No change, backward or forward, ever occurs; if the patient gain a step, he does not lose it again. (Effects produced by treatment are not referred to.)
There is a decided tendency to relapse, even after the patient appears to have got well.	No tendency to relapse. I have never seen or heard of a limb being paralyzed a second time, nor of another limb being the subject of a second attack.
Reflex irritability is, according to some authorities, increased—according to others, decreased.	Reflex irritability is so utterly annihilated as to leave no room for variety of opinion.
No wasting of paralyzed muscles.	Extremely rapid wasting of paralyzed muscles, setting in very quickly after the attack.
No marked impairment in affected muscle of electro-contractility.	Remarkable impairment of electro-contractility—indeed, total loss of reponse to the induced current.

These differences are very marked, and so important that the first six alone appear to separate nosologically the one disease from the other; but it is to the last three that I would especially direct attention. They are physiologically connected in infantile paralysis. The induced current ceases entirely to call forth any contractions of the paralyzed muscles in from twelve to seventy-two hours. At the same time there is developed an abnormal sensibility to the voltaic current. Now this peculiar behavior never occurs in cases of central paralysis, but is exactly what happens when a nerve supplying a muscle has been divided; moreover, both muscles—i. e., the one whose nerve has been cut and the one paralyzed by this malady—lose all excito-motor contractility. But when a nerve of a warm-blooded animal is cut,

* The symptoms of spinal paralysis are taken from Reynolds's System of Medicine, vol. ii. p. 663 *et seq.*

the muscle, at first flaccid, becomes very hard and strongly contracted as long as the wound remains unhealed. When this is well, the muscle relaxes. The nearer to the spine be the wound the harder and more contracted will be the muscle, and the less rapid is the loss of sensibility to the induced current. If we divide the nerve close to its entrance into the belly of the muscle we find hardly any rigidity, quick loss of galvano-contractility, and rapid wasting. Therefore, if we could go a little further and destroy the nerve absolutely at its distribution among the muscular fibres, we should, in all probability, carry the above three characteristics of infantile paralysis—namely, flaccidity, irresponse to faradaism, and wasting—as far as they are developed by the disease itself.

It appears impossible to escape the conclusion that infantile paralysis is a malady purely peripheral, affecting the ultimate nervous fibrillæ of distribution in the muscular elements. I am anxious, gentlemen, that this conclusion be not pushed too far. I am not supposing or imagining any degenerative or structural change in the nerve-fibres as the cause of this malady. The attack is too rapid and too quickly succeeds exposures to warrant such an idea. The essence of the disease probably lies in some subtle derangement of relationship between ultimate nerve and ultimate muscle-fibre: perhaps from some inflammatory, but more probably from a chemical or nutrient change. In after years any amount of tissue degeneration may occur.

Allow me now to refer to a former remark, and to explain its intention. A few paragraphs ago I said that the prevalent notion concerning the central origin of this malady was in its results disastrous, and in saying this I refer especially to the effects produced by loss of time. In the first few hours of the attack the affected muscles are still sensitive to the faradaic or interrupted current. This sensibility rapidly declines, and I am not aware that any use of this force would prevent its extinction. After a time, which varies in different cases, there is established a sensibility to the voltaic or battery current, and it is upon this that we must rely as our chief aid in the treatment of the disease; and a judicious practice, by keeping alive this contractility, preserves the muscle from extreme wasting and degeneration. To wait, with temporizing treatment, or with none at all, until this sensibility is, in its turn, extinct, is the disastrous result of the belief I have combated. Delay in applying the treatment pays a heavy percentage in subsequent difficulty and duration. Very few cases get well of themselves, and tissue change, as evidenced by the wasting, begins almost immediately.

If then, a child, within twenty-four hours of its first attack, do not already show marked signs of recovery, not merely in one or two, but in every muscle, the state of the case should be carefully and rigorously tested by faradization, and again in another twenty-

four or forty-eight hours. Any muscle which, at the end of thirty-six or seventy hours, has ceased to respond, or responds more feebly than at the last examination, will not of itself get well, and to delay treatment is in all probability to condemn the patient to a crippled existence. No disease is so obstinate when old; but while still new, few are more amenable to treatment.—*London Lancet.*

The Cæsarean Operation in the United States. By ROBERT P. HARRIS, M.D.

This is the title of an historical monograph of some thirty pages in length, which has just appeared in the *Am. Journal of Obstetrics*, as a portion of the proceedings of the Philadelphia Obstetrical Society; to be followed in the February number of the said journal by an abstract of cases, published and unpublished, which have been, many of them, rescued from obscurity after a tedious research in public and private libraries, and by an extensive correspondence embracing every State in the Union. The subject of the paper is one of considerable interest, both to the surgeon and the obstetrician, and was undertaken by Dr. Harris for two reasons: 1st. To show the success of the Cæsarean operation in our country; and 2nd, the importance of resorting to the use of the knife early, if it is to be employed with a reasonable hope of success.

Up to the present writing, we are informed by Dr. Harris, that he has collected sixty cases of the operation; which resulted in saving the lives of thirty-two women and twenty-seven children; the last operation dating November 23, 1871. Of the sixty operations, only seventeen were performed with a reasonable degree of promptness, calculated either by hours, or based upon the condition of the patient, the latest being twenty-four hours after the commencement of labor. These resulted in the saving of twelve women, 70 1-17 per cent., and fourteen children, 82 6-17 per cent. All the children were alive when delivered save one, which was born of a sickly woman, having a fibrous tumor and affected with intermittent fever. Two died soon after delivery, one being deformed in the lower extremities, and both very feeble. Of the five women who died, two fell victims to peritonitis (one having been operated upon twice before); one to obstruction of the bowels; one to secondary shock; and one to "irritative fever," at the end of three weeks.

These results establish very conclusively the value of operating early, and before the woman has been injured by craniotomy or exhausted by other fruitless efforts at delivery. In contrast with this degree of success it may be well to state that there were eighty-

eight Cæsarean operations performed in Great Britain and Ireland from January, 1738, to March, 1866, before twelve women were saved.

Dr. Harris has collected one hundred and six cases for Great Britain and Ireland, showing a saving of sixty children and but eighteen women. From 1822 to 1852 inclusive, twenty-six operations are recorded as performed in the United States, resulting in the saving of eighteen women and nine children. Ten of the twenty-six women were operated upon on the first day of labor, resulting in saving eight, with seven of the children. English statistics point to a more favorable result than American as regards the children, but to a much less favorable result as regards the women. This is ascribable in part to delay in most cases, but is no doubt also in great measure owing to the large proportion of subjects whose pelvic deformity arises from the existence of malacosteon, not a single case of which is recorded in the table for the United States, the deformities (33) being all due to rachitis in childhood. It is also probable that a cold, damp climate is unfavorable to success. One-third of our operations have been performed in the States of Louisiana (8), Alabama (7), and Mississippi (5), resulting in saving twelve, or sixty per cent. of the women, and ten children. One woman, in Mississippi, was operated upon three times, and died of peritonitis on the third occasion, although there was no delay in making the section. The first and second operations took place in warm weather, and cold lotions were applied to the abdomen; the last was in October,—a much less favorable season of the year in that locality.

From the investigations of Sir Charles Bell, and more recently of Spencer Wells, and others, into the condition of the uterine wound after the completion of the operation, it has become a question of some moment to decide whether or not it is advisable to close this incision by sutures; and this matter has assumed a definite experimental character on both sides of the Atlantic during the last four years. Of nine examples collected from British tables, eight belong to this period, and of seven, in Dr. Harris's table, six are in the same category. Two cases in each list had a favorable termination, silver sutures being employed in two; linen thread in one; and the long-tailed removable uninterrupted silk suture in the other. Two American women, recently reported in good health, who it is not at all probable could have been saved but for this expedient, have carried, without any perceptible inconvenience, the one six silver sutures, and the other five thread ones, for the last four years.

The results of ovariotomy have demonstrated that traumatic peritonitis is not so much to be dreaded as the same inflammation from other causes; and those of the Cæsarean operation have shown that hæmorrhage, exhaustion, and the escape of the lochia

into the peritoneal cavity, are more to be feared than the injury to the peritoneum by the knife, especially when the last is not favored by exhaustive delay in resorting to it.

The value and safety of the uterine suture have yet to be shown, as it is impossible from the few cases in which it has been employed to say what may be anticipated from its use. It is certain that some cases might be saved by it that could not be without it, but it is equally certain that its influence as a cause of peritonitis has not been as yet estimated; it is probable that this may be more than balanced by the salutary effects of checking hæmorrhage and preventing the entrance of uterine discharges into the abdominal cavity.

What would be the effect of pregnancy upon imbedded sutures in the uterine walls has still to be shown, as we are not aware that any such test has yet been made. To obviate the possibility of risk in this event, various forms of removable suture have been proposed, but the difficulty of using them, as compared with the interrupted suture cut close, has prevented a full trial of their merits.—*Med. Times*, Jan. 2, 1872.

On Dyspepsia of Liquids.

Dr. Thorowgood records (*Lancet*, Feb. 17, 1872) several cases which he considers to be good illustrations of that indigestion of liquids which has been carefully described by Chomel in his work on Dyspepsia. The affection, in its fully developed form, he does not believe is common in this country, though he has met with several cases in the course of the last few years. The following is one of them:

James M'C., aged 30, a pale, dark, intelligent man, came under Dr. Thorowgood's care, complaining generally of dyspeptic symptoms, and especially of the great uneasiness caused by the presence of any amount of liquid in the stomach. Liquids in the slightest degree acid were most distressing to him, and at times he had attacks of sour pyrosis. He complained much of dryness of mouth, with dry skin and costive bowels, urine loaded with lithates, but free from traces alike of sugar or albumen. No loss of flesh; pulse slow and soft; nothing irregular to be found in heart or lungs; no sort of tumor or thickening about pylorus, but on gently vibrating the stomach, fluid was heard splashing about in it, and this sound could be always produced irrespectively of any liquid having been recently ingested. The stomach was much distended. The early treatment of this case consisted in the use of alkalies with bismuth and various bitters, but no improvement resulted; the only noteworthy feature was the effect of a pill of extract of opium

at night, which regulated the action of the bowels so completely that the patient asked for the pills as *aperient* pills. It was afterwards agreed that the patient should drink as little as possible, and take no other medicine than a powder of rhubarb and magnesia every morning. From this time he steadily improved, and after about two months' treatment he appeared to be cured, and was, six months afterwards, still in good health.

Dr. Thorowgood considers the dry plan of diet the only one likely to be followed by any amelioration of the symptoms; and until this is tried, no medicine will prove of any service. At times fits of faintness, with irregular action of the heart, are prominent symptoms in these cases of dyspepsia of liquids, the cause being due to the distended state of the stomach. The patient must bear a certain amount of thirst as well as he can, and take but small quantities of liquids at a time, and not drink for an hour or more after he has taken his meal of solid food. Weak whisky and water, sherry wine, and toast and water, are amongst the least objectionable drinks; and sometimes a small cup of good beef-tea, free from any farinaceous admixture, will suit well. One of his patients found a wineglass of good stout to agree well and relieve his thirst.—*Practitioner*, March, 1872.

Paper on Cancrum Oris. By C. S. KITTREDGE, M.D., of Oakland. Read before the Alameda County Medical Association, March 4th, 1872.

During the years 1863–64, it was my privilege to be the assistant of the late and much lamented Henry Whittlesey, M.D., then the resident physician at the Nursery Hospital on Randall's Island, New York City.

It was our fortune to have during the year, a large number of cases of cancrum oris, and our conclusions with reference to this peculiarly fatal disease may be of interest to the profession.

This formidable affection—which is a malignant form of ulcerative stomatitis—is a disease of debility, induced in children under five years of age, predisposed to tuberculosis by a want of cleanliness, proper food, and care; and appears chiefly in those who are received into our hospitals from the alms-houses, jails and poorly ventilated lodgings—those dark, damp, filthy apartments, where congregate the vice and destitution of our large cities.

It appears generally as the sequel to rubeola, scarlatina, or some other debilitating disease. It occurs at all seasons of the year, but is most prevalent during the summer months. That it is a contagious disease, though in a limited degree, cannot be doubted,

yet I believe that only those who are badly nourished, and of a tuberculous or scrofulous diathesis, are liable to be affected.

Mode of access. The system being in a morbid state, a simple shallow ulcer makes its appearance on the inside of the cheek, or between the two incisor teeth of the upper jaw, at the junction of the frænum labii superioris with the gums, causing the lips to swell rapidly and enormously, the teeth to loosen and drop out, and a general destruction of the parts; or it may commence in the mucous membrane of the throat, or roof of the mouth, destroying everything in its course.

A description of this disease as it appears and progresses when commencing in the cheek—its most common form—will suffice to show all its characteristic features. The first thing noticeable, is a slight circumscribed swelling, hard, painless, red, tense and shining, resembling somewhat the sting of a bee. A very small whitish ulcer will now be found on the inside of the cheek, corresponding in position with the centre of the external induration. The breath is slightly fœtid, and an increase in the secretion of saliva is apparent. The ulcer very soon becomes ash-colored, and rapidly spreads, assuming a phagedenic character, discharging an offensive dirty-colored fluid. In two or three days, a black depressed spot appears on the outside of the cheek, corresponding in size and position with the ulcer within. In the course of another day, a small hole is seen in the centre of this gangrenous spot, through which oozes, drop by drop, the offensive acrid discharge. The face now assumes a peculiar ashy-yellow color, swells greatly, frequently to such an extent as to close both eyes; mortification goes on rapidly, often involving the whole cheek, and exposing the cavity of the mouth. The bones of the face may become affected with necrosis, the teeth fall out, and the little patient becomes a most frightful spectacle to behold, while the horrible stench that arises is well nigh unbearable. The constitutional symptoms are extreme prostration, with rapid, feeble pulse, increasing as the disease advances. The mind is usually clear to the last, yet the little patient lies in that listless and indifferent condition, so common with typhoid patients, and dies from sheer exhaustion.

The duration of this disease is from six to sixteen days, running a most rapid course when commencing in the cheek or throat, but somewhat slower in its progress when commencing in the gums.

Diagnosis. This can be mistaken for no other disease. Its first stage is that of ulcerative stomatitis; but it differs from the simple form of this disease in the marked and constantly increasing debility of the patient. It also speedily assumes its diagnostic phagedenic character, becoming gangrenous usually in two or three days from its inception.

Treatment. This disease demands prompt and energetic treatment. As soon as an ulcer shows itself, I commence with the chlorate of potassa, in from five to ten grain doses every four to six hours, and continue the administration of this medicine—which is justly considered almost a specific in the simple form of stomatitis—during the whole progress of the disease. We must not, however, rely wholly upon this remedy. Our chief hope lies in preventing the ulcers from assuming a phagedenic character, and to meet this end, the part should be thoroughly cauterized as soon as any signs of sloughing appear. The child should be immediately transferred to a room separate from all other children, and every care taken that the disease be not communicated to others, and all cases of stomatitis then in the hospital should be at once cauterized, even before they assume the characteristic malignant features. Of all the caustics, I prefer the solid nitrate of silver, for most cases; yet it will often be necessary to use the acid nitrate of mercury, strong hydrochloric acid, bromine, or other powerful caustics; and even then we too often fail in our attempts to prevent the rapid spread of the disease. The mouth must be frequently washed with a weak solution of liquor sodæ chlorinatæ, oz j to water oz.xij, and after mortification has commenced, a pledget of soft linen wet in this solution, should be constantly kept between the sore and the adjacent tissue. Tonics and stimulants should be freely given on account of the great prostration; and iron with bark or quinine in as heavy doses as the child will bear, and strong beef tea in place of solid food, which latter the child will almost invariably refuse to take, are the best.

Prognosis. Cancrum oris must be regarded as a peculiarly fatal form of stomatitis; in fact, every case that came under our observation, fourteen in number, when the disease was not checked before becoming gangrenous, died. Out of sixty-seven cases of stomatitis treated during the year, there were nineteen deaths, or twenty-eight per cent. This includes not only every case that was regarded as cancrum oris, but five others which, having the same characteristic features, proved fatal before the disease reached the gangrenous state.

The following report of cases, taken from my note book, may not be without interest:

Case 1. C. S., aged two and a half years, was admitted to the hospital, April 28th, with rubeola, having pneumonia as a complication. He recovered so far as to be up and playing in the convalescent ward, yet he did not gain strength.

June 10th. A small ulcer made its appearance at the junction of the frænum labii superioris with the gums, just between the two incisor teeth. I touched this ulcer with the solid nitrate of silver, and gave internally the chlorate of potassa in five grain

doses every four hours, in addition to the tonic of quinine and iron that he had been taking for three weeks.

June 11th. The ulceration spreading. The two incisor teeth being very loose, I took them out of the way and again applied the nitrate of silver thoroughly to the ulcer.

June 12th. Upper lip much swelled; ulceration worse; applied bromine to the part. Washed the mouth frequently during the day and night with the following: R. Potass. Chlorat, dr.iv; Tr. Myrrhæ, oz.j; Tr. Ferri Chl., dr.iij; Syr. Aurant, oz.iv; Aquæ, oz.ij*ss*. *M.*

June 15th. Both cheeks swollen; upper lip protrudes; has lost another tooth. Bromine has been applied daily, and a cloth wet with liquor sodæ chlorinat. diluted with ten parts of water, kept constantly under the lip.

June 16th. The ulceration has eaten through the lip at the junction of the right ala of the nose, making a black gangrenous spot about the size of a dime. The lip is fully an inch thick.

June 18th. The gangrene extends about two inches in length, by an inch in width, including the end of the nose; the face is of a peculiar ashy-yellow color; both eyes are closed by the swelling; he is extremely weak.

June 21st. Died last evening. The mortification extends in a circle over three inches in diameter, destroying the whole nose, and including most of the upper lip. An autopsy revealed abundance of miliary tubercles throughout both lungs.

Case 2. J. T., aged two years, was admitted to the hospital May 22nd, with a light attack of rubeola. He gained no strength and did not wish to leave his bed. During the first week in June he passed by the mouth and nose, a number of worms—ascarides lumbricoides. He also had diarrhœa.

June 11th. His mouth is just beginning to be sore; a small ulcerated point is visible at the edge of the frænum labii superioris, at its junction with the gums; the gums are slightly inflamed and swollen. Touched the ulcer with nitrate of silver, and frequently during the day washed the mouth thoroughly with the following: R. Potass. Chlorat, dr.iv; Tr. Myrrhæ, oz.j; Tr. Ferri Chl., dr.iij; Syr. Aurantii, oz.iv; Aquæ, oz.ij*ss*. *M.* Gave internally chlorate of potassa in five grain doses, every four hours, in addition to the tonic of quinine and iron which he has been taking for some days.

June 12th. The ulceration is spreading along the upper jaw, and the inflammation has extended to the gums of the lower.

June 14th. Mouth worse. Changed the wash to: R. Cupri Sulph., dr.ij; Cinchonæ Pulv., oz.*ss*; Aquæ, oz.iv. *M.*, and apply with a brush.

June 15. This morning I noticed for the first time, on the left cheek, a small red spot, about the size of a pin's head, in the centre of a large red spot about the size of a quarter of a dollar. The cheek is much swollen, and on the inside, corresponding with the smaller spot, is an ulcer about the size of a dime, ash-colored, gangrenous, and emitting its peculiar offensive odor. Ordered the nurse to wash the mouth thoroughly with liquor sodæ chlor., diluted with four parts of water, and a cloth wet with this solution to be kept constantly between the jaw and the cheek.

June 16th. The small spot on the outside of the cheek has to-day the appearance of an ulcer. Cheek much swollen, hard and livid.

June 22nd. The swelling has gradually diminished. A black spot has this morning made its appearance on the left side of the nose, an inch and a half in length by half an inch in width, extending to the middle of the lip. It is of a bluish-black color, and slightly sunken from the rest of the face. Have poulticed the face to-day.

June 26th. Died this morning. The gangrenous portion has gradually increased in size, covering most of the left cheek and lip. No autopsy allowed.

Case 3. S. J. M., aged three years and nine months, entered the hospital, May 28th, with rubeola, complicated with pneumonia. Nothing unusual occurred till June 9th, when she threw up at least three ounces of dark clotted blood. She was much debilitated, had eaten no solid food since her admission, having lived on beef tea and milk punch. Ordered, Tinct. Kino.

June 10th. Noticed that her breath was slightly fœtid, and on examining the throat found it covered with a dirty ash-colored substance apparently membranous. Ordered, Potass. Chlorat. to be given in four grain doses, three times daily.

June 11th. A small ash-colored spot, about the size of a quarter of a dollar, has made its appearance on the roof of the mouth, near the molar teeth; the one in the throat is rapidly spreading. R. Potass. Chlorat., grs. v; Tr. Ferri Chl., *gtt.* v; *M.*; every three hours; also, wash the throat and mouth with: R. Cupri. Sulph., dr. ij; Cinchonæ Pulv., oz. *ss*; Aquæ, oz. iv. *M.*

June 13th. The throat and mouth are decidedly gangrenous, emitting a most offensive odor.

June 15th. She can swallow liquid only and with great difficulty. For the past two days she has apparently been wandering in mind, yet she answers all questions correctly.

June 16th. Died this morning, Autopsy revealed tubercles in both lungs, which had commenced to break down. There was some hepatization. Stomach and other organs normal. From the mouth to the sternum was a mass of gangrene.

Case 4. H. McL., aged two and a half years, entered the hospital July 2nd, with rubeola, which was soon complicated with bronchitis. She was closely watched for the first symptoms of stomatitis, as there were several cases of cancrum oris then under treatment, and as she was very weak. All went well till July 19th, when I noticed that her right cheek was hard, and swollen low down upon the submaxillary. An examination disclosed quite a gangrenous ulcer on the inside of the cheek. I immediately commenced with the following: R. Cupri Sulph., dr.ij; Cinchonæ Pulv., oz.*ss;* Aquæ, oz.iv; *M.;* brushing over the ulcerated surface thoroughly twice daily, and also inserting a cloth wet with liquor sodæ chlorinat, diluted with six parts of water, between the cheek and the jaw, renewing it every two or three hours. The child had been taking a tonic of iron and quinine for a week, and I now added to it chlorate of potassa, giving twenty grains daily in divided doses.

July 22nd. The swelling had greatly increased, and there was in the centre of the induration, a small black spot which rapidly increased in size, being at noon of the size of a half dime, and at night as large as a dime, somewhat sunken from the surrounding tissue. In the centre of this depression was a small opening into the cavity of the mouth, through which oozed, drop by drop, the offensive discharge from the gangrenous portion within.

July 23rd. The gangrenous part was fully an inch in diameter, and more sunken than before, the opening through it into the mouth being about a line in diameter; the face swelling greatly.

July 24th. The gangrene extended nearly to the corner of the mouth, being an inch and a half long and nearly as wide.

July 27th. The child died at five P. M., a most horrible object to behold. The gangrene had eaten out most of the cheek, extending from the symphysis to the angle of the jaw, and down on the neck, being over four inches in diameter. That portion of the lips and face not gangrenous, were very much swollen, closing both eyes, hard, and of a peculiar ashy-yellow color. There was no autopsy.

In the subjoined table, I have called the five cases where death occurred *prior* to the appearance of gangrene, malignant stomatitis, thereby placing none under the head of cancrum oris where gangrene was not a decidedly marked feature of the disease.

TABLE.

No. of Case.	Sex. Male.	Sex. Female.	Age. Years.	Age. Months.	Death occurred in	Primary Disease.	Complications.	Sequelæ.	Autopsy.
1	1	--	2	6	June	Rubeola	Pneumonia	Cancrum Oris	Miliar tubercles in both lungs.
2	--	1	2	6	June	Marasmus	----------	Cancrum Oris	Mesentery filled with miliary tubercles.
3	1	--	2	7	June	Rubeola	Pleuro-pneumonia	Cancrum Oris	Tubercles in both lungs; vomicæ.
4	1	--	2	--	June	Rubeola	Diarrhœa; ascarides	Cancrum Oris	
5	--	1	2	--	June	Rubeola	Pneumonia; diarrhœa	Cancrum Oris	Tubercles in lungs, in abundance.
6	--	1	3	9	June	Rubeola	Hematemesis; pneumonia	Cancrum Oris	Tubercles in both lungs; hepatization; breaking down of the lung tissue.
7	--	1	4	--	July	Rubeola	Gastritis	Malignant Stomatitis	Tubercles in lungs; congestion; emphysema.
8	--	1	2	6	July	Rubeola	Bronchitis	Cancrum Oris	
9	1	--	4	6	August	Rubeola	Pneumonia; laryngitis	Malignant Stomatitis	
10	1	--	4	--	September	Rubeola	Conjunctivitis; Pustula Oph.	Cancrum Oris	
11	1	--	3	--	October	Rubeola	Tubercular Pneumonia	Cancrum Oris	Tubercles in lungs.
12	1	--	3	--	October	Rubeola	Pneumonia	Cancrum Oris	
13	1	--	2	1	October	Rubeola	Pertussis; Tracheitis	Cancrum Oris	Tubercles in lungs, with large vomica
14	1	--	2	--	November	Rubeola	Phthisis Pulmonalis	Malignant Stomatitis	Tubercles in lungs; emphysema.
15	--	1	2	--	December	Rubeola	Prolapsus Ani	Cancrum Oris	Tubercles in lungs.
16	--	1	4	--	January	----------	Hæmoptisis; pneumonia	Malignant Stomatitis	Tubercles in lungs; had been in hospital for two years.
17	1	--	4	7	February	Rubeola	Tubercular Pneumonia	Malignant Stomatitis	Tubercles in lungs.
18	1	--	1	8	March	Rubeola	Otorrhœa	Cancrum Oris	Tubercles in lungs.
19	1	--	3	--	March	Phthisis Pul.	----------	Cancrum Oris	Tubercles in lungs.

The table shows, that of the nineteen cases recorded, twelve were males and seven females. Their ages varied from one year and eight months, to four years and seven months, averaging two years and eleven months. Six deaths occurred during the month of June, two in July, one in August, one in September, three in October, one in November, one in December, one in January, one in February, and two in March. April and May were the only months of the year in which no death occurred from this disease. It should, however, be stated that two of the patients who died in June, were sick with disease during the last week of May, their deaths occurring on the 4th and 6th of June respectively.

In sixteen cases, the primary disease was rubeola. One entered the hospital having phthisis pulmonalis fully developed, one with marasmus, and one had been an inmate for over two years, having suffered from a variety of diseases, hæmoptisis and pneumonia immediately preceding the stomatitis.

It will be noted that in most of the cases, the complications were of a pulmonary character, and all of a debilitating nature. Fourteen autopsies were made; and in every case, tubercles were found in great abundance. In thirteen cases, the tubercles were found in the lungs, and in the other, the mesentery was filled with miliary tubercles.

Of the five cases in which there was no *post mortem* held, three are known to have had severe pulmonic complications, and all being much emaciated, we have reason to believe that these, too, would have exhibited tubercles, had they been examined.

These facts lead me to the conclusion, that cancrum oris has a close connection with tuberculosis; and, I believe, that it can exist only in children of a tuberculous diathesis.—*Western Lancet.*

A Case of Bright's Disease of the Kidneys, in which there was no Albuminuria, the only evidence of Renal Disease being the characteristic alterations of the intra-ocular structures as determined by the Ophthalmoscope. By REUBEN A. VANCE, M.D., New York City. Reprinted from the Boston Med. and Surgical Journal of March 28, 1872.

It has long been known that certain diseases which implicate different bodily organs may present, as part of their phenomena, symptoms which, when considered alone, would seem to indicate the various forms of cerebral disease. This fact especially has tended to make the diagnosis of cerebro-spinal disorders one of the most obscure and difficult problems in practical medicine. The effect of various poisons introduced into the blood in pro-

ducing abnormal manifestations of cerebro-spinal phenomena is so common as to have doubtless come under the observation of all my readers, and need not be dwelt upon here. The effects of alcohol, hashisch, opium, etc., are well known; yet the fact that their different stages display in a brief period of time the symptoms and physical manifestations of diseases which are of a different origin, pursue a different course, and are in no way related to the causes which are in action in the former class of cases, is not so well known. The same is true of organic diseases affecting different parts of the body. The delirium of pneumonia and the essential fevers, the exaltation of mind in phthisis, and the melancholia of cancer, are familiar examples.

Among those diseases which primarily implicate organic structure and secondarily modify the quantity or quality of the circulating fluid, none are of more importance than those affections of the kidneys which are ordinarily known as Bright's disease. There is no organ in the body which is not affected by the changes which this disease produces in the blood, and there are few cases which present themselves to the physician in which it is not desirable to determine the presence or absence of this pathological state. In cerebral diseases this is notoriously the case, and it is always necessary, before ascribing any obscure nervous symptom to disease of the organ manifesting it, to be accurately informed as to the state of the kidneys—the presence or absence of albumen in the urine, and the existence or non-existence of nephritic casts.

The ordinary method of determining the existence of kidney disease is by testing the urine. In this way results are obtained which are of the greatest importance in pathology and treatment. Various methods have been devised to aid the practitioner in this task, some of which are cumbersome and some simple and expeditious.* Whatever the plan adopted or the apparatus employed, the object to be attained is simply the determination of the existence of certain abnormal ingredients in the specimen of urine under examination. In the vast majority of cases of kidney disease the urine will reveal evidences which will settle the case in one way or the other. Yet that such is not always so can be seen by the following case, which I have reported at length on account of its close resemblance to well-known forms of brain disease.

Some months since, a gentleman engaged in a wholesale business which had been greatly embarrassed by the Chicago fire, called at my office, complaining of wakefulness, headache, vertigo, and confusion of ideas. He was continually harboring disagreeable thoughts, and could not obtain rest either by day or night. The ideas he entertained relative to the feelings of his friends

* VANCE. Chemical Examination of the Urine, with a description of a convenient Apparatus for its speedy Analysis. *Medical World*, September, 1871.

towards him were grossly erroneous, and although he would admit his mistake when expostulated with by them, yet an hour or two subsequently he would find himself in the same old disagreeable, doubting, distrustful state of mind. His sleep was unsound, and greatly disturbed by dreams of a grotesque rather than a disagreeable nature. Late in the afternoon and during the evening he was subject to vertigo, which would often become so severe as to cause him to fall to the ground. Unable to sleep, he would occasionally walk the streets until quite late, and on one occasion during an attack of vertigo was arrested and taken to the station-house before the officer discovered that he was not dealing with a drunken man. He suffered greatly from depression of spirits, and lost interest in many of his former pursuits. He was conscious of the gravity of these symptoms, and had resorted to a number of measures designed to relieve his wakefulness, for several weeks before calling on me. As time passed, his sufferings became more and more severe. His facial expression changed, and in his whole appearance he was much different from what he had been the year before. He now complained of dimness of vision, and found it difficult to read his paper or write up his books. A distressing *tinnitus aurium* developed itself, and was especially annoying at night. His feet would "go to sleep" almost as soon as he took his seat in a chair, and he noticed that this symptom came first in the right foot, and persisted there after it had disappeared from the left leg. In attempting to write for any length of time he was compelled to stand, and of late he has noticed a sensation of pricking and tingling in the ring and little finger of the right hand when he has been working steadily with his pen. A sensation of extreme cold in the outer part of his right leg, extending from just below the knee to the ankle, developed itself a short time since and has caused him great discomfort. His walk is less secure than formerly, and his right foot has a tendency to drag. His handwriting has undergone a change, and, from being a bold, firm style, is loose and straggling, and occasionally illegible. His friends notice that in conversation he has a tendency to use wrong words, generally those having a sound similar to the ones he should employ, and that his voice is altered and his manner of speaking different from what it was before he became unwell.

During the first interview I had with him, he related many of the symptoms just detailed, but was disposed to ascribe most of his difficulties to disordered digestion—a condition which manifested itself very shortly after his business troubles commenced. His appetite was capricious, and an article which he had longed for most ardently would excite a sensation of disgust as soon as it was brought into his presence. Pain in the pit of the stomach and flatulence were especially distressing, and were present to a greater

or less degree at all times. His bowels continued regular, and nothing abnormal was noticed about the renal secretion.

At the time he came under my care he was about 35 years of age. He could give a clear and concise family history for three generations, and numbered among his ancestors three persons who had been insane, one who had died of apoplexy, and one who during the past five years has been a helpless paralytic. His own health has always been good, and with the exception of an occasional attack of sudden painless vomiting, sometimes attended with profuse watery evacuations, he has never been sick.

The æsthesiometer revealed extensive and well-marked anæsthesia in various parts of the body. As compared with the corresponding situation on the other side, the anterior surface of the left forearm was hyperæsthetic, while this state of facts was reversed with regard to the left hand and arm. Well-marked anæsthesia could be demonstrated all over the right side, with the exception just noted. The patient stated that it took him some time to determine in his own mind, whether an object was or was not in contact with the right side of the body, while no such difficulty existed on the left side—a fact which was very apparent when he was tested to determine the point. In addition to his diminished sensibility to touch and contact, it was found that his sensibility to changes of temperature was likewise impaired, and that he was not competent to decide with his right hand the difference between two substances, one of which was 20° hotter than the other. Painful impressions were felt as acutely on the right as on the left side of the body, and the electro-muscular sensibility was not implicated on either side.

The muscular power, as denoted by the dynamometer, was very markedly diminished on the right side. With the left hand, he could mark 28°, while, despite his utmost exertions, he could barely reach 15° with his right. His grip was very uncertain, at one moment strong and another weak—that peculiar vacillating contraction of the muscles of the forearm which is characterized by the irregular and descending line traced by the dynamograph. The electro-muscular contractility was alike on both sides. The muscles were not atrophied to any appreciable extent, but seemed to be in a very fair condition.

The ophthalmoscope was next resorted to, and the following peculiar and characteristic appearances were noted at the back of the eye. The optic disk and its immediate neighborhood was obscured by a grayish-white coloration, and the appearances were such as to indicate an infiltration and swelling of the part. Immediately on the outside of this was a broad white band, which contrasted strongly with the red reflection of the fundus, and at the periphery of this zone a number of very small, but perfectly white, isolated spots could be discovered. In the region of the

macula lutea these small white spots were numerous, and assumed a circular arrangement. Several traces of extravasated blood could be seen. The vascular supply of the disk was concealed from view; that of the retina was but little changed from a healthy state. The veins were slightly enlarged and a trifle more œdematous than normal; the arteries retained their usual dimensions.

At my request, a specimen of his urine was carefully examined by my friend Dr. Rankin, but aside from a slight excess of urates it was perfectly healthy. Another specimen was procured, which I examined, but could discover nothing in addition to what Dr. Rankin had found. For a number of weeks subsequently, the urine was tested every few days, but none of the evidences of kidney disease could be detected.

This gentleman traveled South in the latter part of December, and spent six or eight weeks in Havana. This trip had the effect of restoring his health in great measure, and upon his return, last February, he was in excellent spirits, and said that he had not been feeling so well for a year. An examination of his urine now revealed granular and hyaline casts, with a small amount of albumen. The ophthalmoscopic appearances were much less marked and striking than they were before, but were none the less characteristic. The broad white zone surrounding the parts in the immediate vicinity of the optic disk had disappeared, and was replaced by a structure of a slightly darker tint than the rest of the fundus; the edges of the disk which before were obscured could now be discerned with ease, while the discal vessels could be observed without difficulty. The circular arrangement of white spots previously seen at the macula lutea was unaffected. A number of white streaks had been developed along the course of some of the vessels. The spots of extravasated blood had all disappeared. A certain amount of difficulty of vision still remained.

This case does not stand alone, for my notes show several others in which the essential particulars—the degeneration of the retina and other ophthalmoscopic appearances of Bright's disease—have been discovered upon examination, without there being any rational symptoms or other physical signs of renal disease, yet in which subsequently the patients have developed albuminuria. It is but a few days since that I saw a typical example of this peculiar form of retinitis in a patient under the care of my friend, Dr. James F. Ferguson, with whom I saw the case in consultation, but no evidences of albumen or casts could be found, although the urine was separately examined by two different observers. Such cases are far from being common—at least so far as their recognition is concerned—yet their importance from a pathological and therapeutical point of view is such that they merit careful attention and study.

The case above is one that would ordinarily be accepted as a

typical example of that form of cerebral disorder designated "congestion of the brain." The manner of its development—following prolonged and unusual mental anxiety and distress; its occurrence in an individual strongly predisposed to nervous disease; the symptoms complained of—insomnia, vertigo and headache, with hallucinations of the special senses of sight and hearing, and "referred sensations," such as the pricking and tingling in his extremities, and the feeling of coldness in his right leg; the mental depression and characteristic changes in speaking and writing; and the alterations of peripheral sensibility as determined by the æsthesiometer, and of muscular power, denoted by his manner of walking and by the use of the dynamometer—as also the striking fact that these last phenomena were more marked on one side than on the other—make a series of facts which point to the brain as the part at fault, and which indicate with almost certainty that the condition there existing is due to exhaustion of that organ. When this state of exhaustion is due to overwork of that part, it is generally, but not invariably, accompanied by overfulness of the cerebral vessels. It was for the purpose of determining the state of the cerebral circulation that the ophthalmoscopic examination was made, and I was surprised to discover that the brain symptoms which were so strongly marked, were merely symptomatic of Bright's disease, and were not due to primary disorders, either organic or functional, of the intra-cranial organs.

The peculiar form of vomiting complained of by this gentleman was the only symptom which can be considered to indicate in the slightest degree any renal disorder.

The connection between the retinitis and the organic changes in the kidneys is doubtless due to the operation of some one cause which produces them both. In other words, the degeneration of the retina and the degeneration of the kidneys are the common expression of some bodily condition which we are as yet unable to understand. When we consider the extremely delicate tissues of the former, and the comparatively stable structures of the latter, we cannot be surprised that the retina should present morbid changes before we can obtain any evidence of implication of the kidneys—the only wonder being that this mode of development should not be more common than the recorded observations would lead us to infer.

I am inclined to believe that a careful and systematic examination of the intraocular structures with the ophthalmoscope in every case in which nervous symptoms are complained of—these examinations being frequently repeated, and the patient watched for a length of time—will ultimately establish the fact that in a large proportion of cases Bright's disease will first manifest itself by the characteristic changes which it produces in the retina, and that these retinal appearances will be present for a length of time before any abnormal ingredients can be detected in the urine.

Cerebro-Spinal Meningitis or "Spotted Fever."—Answer to Correspondents.

The epidemic of cerebro-spinal meningitis which was spoken of in our last journal, as having recently visited Buffalo for the first time, continues to prevail with unabated frequency; the health officer's report for March, shows thirty-two deaths from this disease alone. As we have already said, we are unable to throw any great light upon the nature or causes of this disease, but we would faithfully record the facts and circumstances of its appearance, and direct attention to the importance of studying the conditions and surroundings of all cases as they appear, thus hoping to finally gain some better and more satisfactory knowledge of its nature, causes and modes of cure. With this view we have noted the general hygienic conditions in the forty cases which have already fallen under our own care, or been seen in connection with our professional friends. These furnish representative cases of the disease as described by all authors, some mild in character and terminating favorably, others of active or malignant form and terminating fatally. It is impossible to determine, at present, the proportion of deaths to cases,—our own statistics show nothing on this point,—being called to see many of the cases because severe and certain to end fatally. It seems probable that the death rate is not so great as has generally been estimated in most other places where it has prevailed epidemically. Of the forty cases twelve are now known to have ended fatally, and of the remaining, others are likely also to end fatally; however, taking away the cases seen in consultation mainly on account of their severity, and the proportion would be lessened nearly one-half.

We are asked, is it contagious? For ourselves we answer no, and we believe the profession, with remarkable unanimity, have regarded it as non-communicable by the sick to the well. Its prevalence in the French garrisons and barracks without extending to the civil population, and some other isolated facts giving the appearance of its extending by contagion, led a few physicians to suppose it "infectious" or contagious, but we believe that their views were not sustained by subsequent observation, and that it may safely be regarded as settled, that it is not contagious.

Again we are asked, is it malarious? or does it arise from sewers and other sources of atmospheric contamination? In Buffalo, its rise and progress are connected, so far as can be known, with no animal or vegetable putrefaction, nor with any miasmatic or other deleterious or offensive emanations. It has made its appearance in the hovels of the poor and palaces of the rich; it has been about equally fatal when seen in the most salubrious and best ventilated apartments as when occurring in places destitute of all healthy surroundings. We cannot answer this

question better than by quoting from the excellent work of Stille upon Epidemic Meningitis, which we would recommend to all who desire to study this disease. Speaking of the causes, he says: "It may be said in general terms that epidemic meningitis has occurred in all portions of the temperate zone, inhabited by European races and their descendants, in all sorts of localities, among all ranks and conditions of society, at all ages, and in both sexes, and that it is therefore in the strongest sense of the word a pandemic disease. And, when it is added that the disease is not disseminated by contagion, it evidently falls into the category of the diseases referred to, of whose occurrence no other explanation is at present possible than that they are directly produced by a specific atmospheric poison."

Does it resemble typhus fever, and is it a new phase of that disease? Every experienced physician when he meets his first case, though he may not recognize its true nature, will at once see that he has a group of remarkable symptoms, and that it is something he has never before seen; he will soon decide upon its true character by exclusion; rejecting every other form of disease, he will soon arrive at the true nature of the malady. The cases do not resemble anything we have ever before seen; the symptoms, appearance of patient, and history of attack, are quite unlike that present in any other disease. Still, there are some resemblances to other low forms of disease, and some physicians liken it to typhus. We cannot better point out the wide distinction, than by quoting a tabular summary made by Stille.

Epidemic Meningitis.	Typhus Fever.
A *pandemic* disease. Occurs in places remote from one another, and without intercommunication.	Essentially an *endemic* disease. Always due to local causes. Spreads by intercommunication only.
Attacks all classes of society. Is never primarily developed by squalor and deficient ventilation.	Attacks primarily the poor, filthy, and crowded, alone.
Is not contagious.	Contagious in a high degree.
More males than females attacked.	The two sexes are equally affected.
More young persons than adults.	More adults than young persons.
Generally occurs in winter.	Epidemics are irrespective of season.
Eruptions are wanting in at least half of the cases; they occur within the first day or two.	The eruption is rarely absent, and appears between the fourth and the seventh day.
The eruptions are very various, including erythema, roseola, urticaria, herpes, etc. Ecchymoses are common.	The eruption is uniformly roseolous and then petechial. Ecchymoses are rare.
Headache acute, agonizing, tensive.	Headache dull and heavy.
Delirium, often absent; often hysterical, sometimes vivacious, sometimes maniacal. Generally begins on the first or second day.	Rarely absent; usually muttering. Rarely begins before the end of the first week.

Epidemic Meningitis.	Typhus Fever.
Pulse very often not above the natural standard; often preternaturally frequent or infrequent. Is subject to sudden and great variations.	A slow pulse exceedingly rare. Its rate is pretty constantly between 90 and 120.
"The temperature is lower than that recorded in any other typhoid or inflammatory disease." It is also very fluctuating.	The temperature is always more or less elevated, and it does not fall until the close of the disease. "The skin is hot, burning, and pungent to the feel."
The body has no peculiar smell.	The mouse-like odor of typhus i characteristic.
The tongue is generally moist and soft; sordes of the teeth, etc., is rare.	The tongue is generally dry, hard and brown; and the teeth and gums fuliginous.
Vomiting, generally of bilious matter, is an almost constant and urgent symptom, especially in the first stage.	Vomiting is rare, and not urgent.
Pains in the spine and limbs, of a sharp and lancinating character, are usual, and evidently neuralgic.	Pains are dull, heavy, and apparently muscular.
Tetanic spasms in a very large proportion of cases and within the first two or three days. They are due to an inflammatory exudation within the spinal canal.	Tetanic spasms are unknown in typhus. Convulsions sometimes occur, due to "pyæmia."
Cutaneous hyperæsthesia is a prominent symptom.	The sensibility of the skin is generally blunted.
Strabismus common.	Rare.
The eye, if injected, has a light red or pinkish color.	The blood in the conjunctival vessels has a dark hue.
The pupils are often unequal.	Always equal.
Deafness often complete and permanent.	Hardly ever permanent, or attended with signs of disorganization of the ear.
Duration very indefinite; but generally from four to seven days.	Duration from twelve to fourteen days.
Relapses are common.	Relapses are rare.
The blood is often highly fibrinous.	The blood is never fibrinous.
The lesions, unless in the most rapid cases, consist of a fibrinous or purulent exudation in the meshes of the cerebro-spinal pia mater.	There are no inflammatory lesions whatever.
Mortality from 20 to 75 per cent.	Mortality from 8 to 40 per cent.

Our space prevents our answering but one other question asked by those who have not yet seen, but every day expect to meet the disease. What *treatment* do you find most satisfactory? The following suggestions copied from an essay by J. Nettan Radcliffe, published in a work upon diseases of the spine and nerves, will furnish in brief as satisfactory answer as can be given.

"*Prophylactic.*—Ignorance of the true etiology of the disease limits our preventive efforts to general sanitary measures applicable to all epidemic diseases, for the purification of houses and localities. Mr. J. Simon, recording the conditions under which the disease

has prevailed, writes: 'I am strongly of opinion that the best sanitary precaution which in the present state of knowledge can be taken against the disease, must consist in care for the ventilation of dwellings.' He adds, however, 'that in some cases, according to local reports, the distribution of an epidemic has very decidedly not been governed by conditions of overcrowding and ill-ventilation.' Dr. B. W. Richardson's suggestion as to the cause of the disease should lead to the careful microscopic examination of all breadstuffs and farinaceous preparations in use among families and communities where the disease breaks out, and the disuse of such as may be of doubtful character.*

"*Curative.*—The treatment of epidemic cerebro-spinal meningitis is as unsatisfactory as that of cholera. The evidence of the course of the disease having been beneficially affected in any outbreak by the administration of medicine, is very doubtful. The too common rapid progress of the malady to death, as in cholera, and the nature of the lesions determining death, necessarily set at naught efforts to control it; medicine not being guilty either of inaptitude or inactivity. The control of this disease, as of cholera or trichiniasis, is a question of preventive rather than curative treatment, and must depend upon the discovery and limitation of its cause. In the earlier outbreaks, epidemic cerebro-spinal

* *Diseased Grain.*—Dr. B. W. Richardson has suggested that epidemic cerebro-spinal meningitis may possibly arise from the consumption of diseased grain, after the manner of ergotism, and perhaps acrodynia. He thinks that the probabilities are altogether in favor of the suggestion, that "the cause, in fact, is a diseased grain, or fungus, contained in some kinds of flour out of which the breadstuffs are made. This fungus may not be present in large quantities, and many persons may eat of the food without getting a poisonous part; but one will get it out of a number, and this without any communication beyond the breaking of bread together; this disease may occur in one member of a family, leaving the rest free, and in this irregular way it may be distributed, in an epidemic form, over a large surface of the country." He adds, "If my hypothesis, as regards cause, be correct, there is little danger of the disorder extending widely in this country; for of our cereals used as food, nearly the whole of the population now select wheat, and our wheat generally is selected for the market with great judgment and circumspection. Any cases, therefore, that might occur would be isolated, and would be easily traced out and prevented." This suggestion opens out an altogether new field of inquiry respecting the origin of the disease, and it demands active and thoughtful consideration in subsequent outbreaks. Dr. H. Day, of Stafford, has endeavored by experiments on the lower animals, to obtain some light on the subject. He fed three rabbits with unsound grain (wheat, oats, ergot of rye, and mouldy bread) with this result: In all the animals a spasmodic affection was produced, and in two, inflammatory changes in the right eye, proceeding in one case to ulceration of the cornea, and evacuation of the contents of the globe. One of the rabbits died on the eighth day, the other two were killed on the twelfth day, and in all more or less congestion of the membranes of the spinal cord was found on dissection.

The sum of our knowledge of the etiology of epidemic cerebro-spinal meningitis is this; that the clue to its explanation has not been discovered.

meningitis was treated as an acute inflammatory affection, by bleeding and purgatives, with the general result that the fatality of the malady was probably invariably augmented. During the recent outbreak in Philadelphia, it was found that, in the more asthenic cases, cupping the nape of the neck was 'of essential service in mitigating, and generally, indeed, in wholly removing the neuralgic pains which form so prominent and so severe a symptom in many cases of the disease.' (STILLE). When the state of the patient forbade the abstraction of blood, dry-cupping used in the same locality afforded signal relief, and rendered the effects of vesication more prompt and complete. This was the experience of one of the least fatal outbreaks recorded. The experience of the majority of epidemics has been against any bloodletting, local or general. The deduction to be derived as to depletion from the general state of the circulation and the results of practice entirely coincide. For, as a rule, the pulse from the very outset contraindicates the withdrawal of blood; and, if in any case it should seem from the general symptoms that depletion might exercise some control over the central mischief, a thoughtful regard should be given to the future. The application of *cold* to the head and spine, either by means of ice or a freezing mixture, in Esmarch's India-rubber bags, is not open to the same objection as bloodletting, and has furnished by far the most satisfactory results of all direct treatment of the acute cerebro-spinal symptoms. In its use care should be taken not to prolong the application so as to depress or increase the depression already existing of the whole system. When the acute nervous symptoms are accompanied by marked prostration, it is advisable during the application of the ice to swathe the limbs in hot flannels, pack the legs and thighs with hot-water bottles, or bags filled with hot sand or salt, and cover the abdomen with thick layers of flannel or cotton-wool. From the very outset of the disease, care should be taken to economize the temperature of the body, and anticipate its fall; and in cases characterized by collapse, or much vital depression, the application of external heat in the manner just suggested is a cardinal point of treatment.

"Of medicaments directly addressed to the nervous symptoms, *opium* is the most valuable. It is especially indicated when there is much restlessness and delirium, sleeplessness, hyperæsthesia, and painful spasm. *Morphia* is the best form of administration, and subcutaneous injection perhaps the best mode. The drug should be given in decided and frequently repeated doses, and carefully watched. Stille says of its use during the recent outbreak in Philadelphia: 'We were in the habit of giving one grain of opium every hour, in very severe, and every two hours in moderately severe cases, and in no instance was produced either narcotism, or even an approach to that condition. Under the influence of the medicine the pain and spasm subsided, the skin grew warmer, and

the pulse fuller, and the entire condition of the patient more hopeful. It seemed probable, however, that the full benefit of the opium treatment could be received by those only who were subjected to it in the early stages of the attack. Direct experience is here in perfect accord with the expectation which a knowledge of the pathological processes involved in the disease would naturally suggest.'

"A Committee of the American Medical Association has reported favorably of the *sulphate of quinia* in large doses, given at the very beginning of the disease. In some instances the drug seemed to abort the attack. The committee speaks also of the favorable results reported from the combined use of *ergot* and *chloride of iron*. Some American physicians have given *ergot* in combination with *belladonna*, and *belladonna* in combination with *quinine*, but with equivocal benefit. *Mercurials* have been freely used, particularly in the form of *calomel*, but their effect has been most questionable, except as purgatives. Their indiscriminate use is to be utterly condemned, and their use at all to be discountenanced. A host of other medicaments have been made use of, of which it is requisite to note only *iodide of potassium*, *bromide of potassium*, and *arsenite of potash*. The circumstances under which the two former drugs have been used, and are most likely to prove beneficial, will suggest themselves to the practitioner. It does not appear that any decided good has arisen from their administration. In protracted cases of convalescence the arsenite of potash may prove a valuable remedy.

"Of the general treatment of the patient the hot bath [102°–103°] is, when practicable, the most important. This should be followed, as recommended by the Committee of the American Medical Association, by friction with warm oil of turpentine. The *regimen* should be generous and nutritious from the beginning of the disease. In the acute stages soup of some kind or other, or milk, is needed; and as soon as appetite returns, *solid* viands of any digestible character must be given. In the graver cases where there is much restlessness and spasm or stupor, and food cannot be given by the mouth, from the patient's refusal or inability to swallow, an attempt should be made to administer it by the rectum; when there is much thirst, the patient's fierce desire for drinks may be freely indulged.

"The state of the pulse is the principal guide to the use of *stimulants*. Their administration as a special remedy, independently of the indications which generally govern their use, has not been followed by good results; but they are called for when the condition of the pulse and the aspect of the patient show manifest flagging of the vital power. The *sequelæ* of the disease must be treated on ordinary principles.

"Too frequently the state of the patient as to delirium, spasm, and irritability of the stomach prevents all internal treatment whether by medicine or food, and limits the efforts of the physician to external measures, restricting even their application. To this unhappy combination of unfortunate and uncontrollable conditions may reasonably be attributed to some extent the inefficacy of treatment."

Much might be added of personal experience, but for the present this brief outline will suffice. At present, in Buffalo, the severity of attack in new cases is less than at the first outbreak of the disease.—*Buffalo Medical Journal.*

Malingering Extraordinary.

An instance of feigned disease which, as regards skill in simulation and successful execution, may be considered unique, has recently transpired in London, and is reported at length in the *Lancet* for February 17th.

The subject was a well-educated and intelligent man of 43. He usually assumed the *role* of a physician, and generally gave a straightforward history of his case for the time being and of his social antecedents. On one occasion his reputed relationship to Dr. Marshall Hall passed unchallenged. He successfully duped eleven of the hospital surgeons and physicians in London, some of them men of eminence. His object in carrying out the deception was never discovered. He passed successively from one hospital to another, remaining sometimes till he was pronounced convalescent, at other times taking sudden leave when suspicion appeared to be aroused to a degree too unpleasant.

His success at simulating was confined to the graver nervous affections, a department of pathology one would think ill adapted to malingering. He was treated for tetanus, for hemiplegia, and for ingravescent apoplexy, and his imitations of symptoms were so perfect as to entirely blind his medical attendants. He learned at one hospital points in his disease to be improved upon at the next; his tongue was at one time protruded too straight to conform to the paralytic condition he otherwise presented so well; at the next stopping place the lingual deviation was correctly assumed. At one time he suffered from traumatic tetanus, but the surgeons could find no cicatrix about the scalp to recall the alleged fall of forty feet some years before; the next time he has tetanus there is a distinct scar. His temperature arose once to 102° Fah., as it should; it was some time subsequently discovered that he had slyly placed the thermometer bulb near the candle flame when it

should have been in his axilla. His first attempts at opisthotonos were wanting in rigidity of the abdominal muscles; he profited by the suggestion, and at the next hospital his tetanus was attended with spasms which made his abdominal muscles "as hard as boards." Night or day, he never forgot to carry out the simulated symptoms. In one hospital he had tetanus for ten days, and although a carbuncle, *which he did not feign*, came on the back of the neck, and was freely opened without an anæsthetic, the tetanic opisthotonos was not meantime neglected.

Treatment did not discourage him, and the variety of therapeutics to which he was subjected was heroic, and was heroically endured. Opium and morphia were administered by the stomach and the rectum and under the skin. Calabar bean, belladonna, bromide, and iodide of potassium, chloroform and hydrate of chloral, were given in enormous doses to control his paroxysms. Ice-bags and ether-spray to the spine were also duly tried. He was watched with at night by diligent students enthusiastic to study the natural progress of tetanus; he was made the subject of a clinical lecture on "arachnoid hæmorrhage" before a medical class; and the notes of his case in the hospital case-books were always voluminous as the urgency of his disease appeared to demand.

One one occasion, he was believed to be incurable; a solicitor was sent for, and the pseudo-doctor made his will bequeathing a handsome sum to the assistant physician and to the hospital; this thoughtfulness on his part resulted in special comforts from the hospital authorities, including the best of wines and of food.

The period of this arch impostor's performances extended over nearly four years, and under his successive aliases comprised such hospitals as St. Bartholomew's, Middlesex, and St. George's.

The *Lancet* remarks editorially on this case: "How many hospital statistical tables he must have falsified in his time! What a God-send such a patient would prove to the man with a firm faith in some new theory of disease and bran-new remedy for its cure!" —*Boston Med. and Surg. Journal.*

Enuresis.

Dr. Woodman, in a clinical lecture at the London Hospital, published in the *Medical Press*, recommends the following method of investigating cases:

1st. Inquire carefully into the duration and frequency of the incontinence, and into the previous history of the child and the family.

2nd. Carefully note the diathesis, and general bodily condition of the patient.

3rd. Examine the *urine* by test papers, by other tests, and by the microscope if necessary.

4th. Make a careful examination of your little patient, including the anus and rectum, amongst the pudenda, and if needs be, exploring the bladder also. I need not enjoin upon you all possible delicacy and tenderness in these examinations. You must explain the necessity to the parents—and you will often astonish them by evidences of neglect of cleanliness, or of the existence of sores of which they were ignorant.

5th and lastly. Suit your treatment to the case; removing or soothing all causes of irritation, and at the same time endeavoring to improve the general health, for it is quite true that delicate and tubercular children, or those weakened by long and severe illnesses, such as the exanthemata, suffer most. Above all things *do not countenance corporal punishment for this* bodily infirmity. It is as cruel as it is usually useless; and I am in the habit of saying, that the parents or nurses ought to be beaten, and not the little patients.

Dr. W. mentions the following *auxiliaries* to treatment, useful in a great number of cases.

There is first the warm-bath; a sitting-bath is all that is generally needed. It should not be *too* warm, indeed 90° or at all events 98° is quite warm enough. Next, I have found it of great service to forbid the little patients to drink anything after their tea (say at five or six o'clock), unless thirst be extremely pressing.

On the importance of *waking* them up once, twice, or more in the night to make water, I need not dwell. This is not so cruel as it seems; the child is soon asleep again in most cases. It is also well not to let them lie on the back. The trigone of the bladder is the most sensitive part, and besides, it is possible the posterior regions of the spinal cord get unduly congested. A reel (such as used for cotton), fixed in the middle of the back sometimes prevents this, and the child may be turned over on the side.

For local sores, the glycerine of tannin, aided by cleanliness, is very valuable. I wish it did not stain the sheets so much. As tonics, mineral acids with bark, and the perchloride of iron, are the best I know; and if sweetened, children seldom refuse to take them, which is a great advantage.

As a sedative, belladonna is, perhaps, often better than opium. You may give from one-eighth to one-fourth of a grain of the extract even to very young children, three or four times a day. This is the most successful empirical remedy I know, and in obscure cases always deserves a trial, increasing the dose within the limits of safety. Should the urine, however, be saccharine, ammoniacal, or phosphatic, opium must have the preference.

For ascarides you will use local injections. Salt and water enemata are as good as anything else. In epileptic cases, cod-liver oil (if the fits are tubercular in origin) will perhaps deserve to be considered as more than an auxiliary.

In a communication to the *British Medical Journal*, Dr. Savage states that to a healthy girl, æt. 6½, who, from infancy, had been addicted to bed wetting, he ordered the lower part of her spine to be sponged daily, and with the most satisfactory result.—*The Doctor.*

The Plague of 1871 *in Buenos Ayres.*

A pestilence has just swept over Buenos Ayres, which, if not equal in fatality to some of the epidemics in Europe during the seventeenth century, is almost without a parallel in modern times. Two accounts of this great disaster have been published, one by the Rev. T. E. Ash, B.A., Chaplain of British Legation at Buenos Ayres; the other—more strictly medical—by William N. Hiron, M.R.C.S., and it has occurred to us that some useful sanitary lessons might be gathered from the graphic and instructive narratives which these gentlemen have given.

Buenos Ayres, the capital of La Plata, the city of "good air," is a town of some 180,000 inhabitants, situated on the banks of the river Platte. Until recently it has borne a high reputation for health; "as far as natural climate, air and soil of the country are concerned, unquestionably the healthiest place in the world," is Mr. Ash's description. Alas, that man, by indifference and neglect, should have made it what it is! By what accident or providence it has escaped so long and avoided a catastrophe is one of those mysteries that we cannot attempt to solve.

Imagine a city with narrow streets, crowded houses, and, in parts, a density of population almost beyond belief; where there is no provision for drainage beyond the cess-pool or old well; no water-supply save that from the river—a river so poisoned by filth, that "dead fish covered the roadstead as high as Palermo." Add to this a sluggish inlet, into which the Riachuelo (our little Ganges, as it was aptly termed) poured a reeking mass of *debris* from the slaughter-houses, which may be better imagined than described; "the saladeros continued working, and the river at Baraccas literally ran blood; the smell in December had been so horribly nauseous that, in various parts of the town, ladies and people of weak constitution were seized with vomiting when the wind blew from the south."

Newly-made roads had been filled in with offal and refuse from the scavengers' carts before being macadamized, and these gave forth an almost intolerable stench after every shower of rain.

Cesspools have been mentioned as universal, and as many as fifteen or sixteen old wells would be found in clearing the site for a house. These naturally became the receptacles of filth and of water, which it was prohibited to throw in the streets. The soil, therefore, in spite of a dry winter and spring, was saturated with moisture, and a summer sun of unprecedented power brought about the natural results. The summer months in Buenos Ayres are December, January, and February. The plague, therefore, which lasted from January to May, took place in the true epidemic season, the latter half of summer and autumn. "The city was fermenting and steaming; so noxious and deadly were the vapors that rose from the ground, that wherever it was opened nausea and sickness followed." In the expressive words of Mr. Ash, "the air was foul and sickening, the water was corrupted, the earth was reeking with abomination. The plague came, and it found the place ripe for destruction."

At the close of 1870, Asuncion, the capital of Paraguay, was attacked, and soon afterwards Corrientes, a town on the direct line of communication between Asuncion and Buenos Ayres. With the new year of 1871 it became manifest that people were dying fast in one of the low quarters of Buenos Ayres: "it was cautiously whispered, 'we have yellow fever amongst us,' but Dr. Golfarini and others hastened indignantly to contradict the rumor, and comfort the public mind. It was only the fall of the leaf, etc."

No precautions were taken, no sanitary *cordon* drawn round the infected quarter. In February came the Carnival, with its crowded theatres and noisy festivities, and the mortality was doubled. The municipality now became alarmed, and precautions were taken, but whitewash and offal carts, and sprinkling of tar, were inadequate to cope with evils now grown so gigantic. In March, the deaths reached 350 in the day, and all parts of the city were involved. Physicians recommended those who could to leave the city, and in the general *sauve qui peut* no less than 100,000 fled from their homes. All honor to those who, in that fearful time, were true to duty. "The few English doctors," we read, "stood their ground manfully," and were all at one time or another struck down, but, fortunately, recovered. The Irish nuns, the French sisters of charity, and the clergy of English, Scotch, Irish and American congregations, bore an heroic part, where friends and neighbors had fled in wild dismay. "It was like a gleam of sunshine to see the French and Irish sisters noiselessly moving about on their mission of mercy, soothing the last hour of many, and sometimes rescuing others from the jaws of death, who had been forsaken by friends and kindred."

Bakers and printers suffered most severely; no less than sixteen newspaper carriers died. Women and children almost escaped, and grave-diggers, though overworked, bore a charmed life; "there were 360 employed, and yet not one died of the fever."

The difficulties of interment increased with the mortality, and many bodies lay for days unburied. Men, supposed dead, broke from their flimsy coffins on the way to the grave. Buenos Ayres was as a city of the dead; business was at a standstill. "At night the silence was rarely broken but by the hollow sound of vehicles taking off the dead, or the tinkling of a little bell, as the blessed sacrament was conveyed to the dying."

Instances of heroic devotion even unto death were numerous. The cases of one merchant and his wife, stricken down together, were "so malignant that six nurses in succession died while attending on them, and finally a young lady, of good family and education, volunteered for the post of danger, and also fell a victim." The doctors had toiled nobly. "Of seventy who remained on duty, about half sickened, and fifteen died."—(Hiron.) The mortality for the month was 11,000.

By the middle of April all the city offices had closed except four, and twenty days' vacation was ordered by the Government; but more than 22,000 persons had been buried in one cemetery during the past three months.

During the latter part of April and May a marked and rapid improvement took place, until, with the advent of winter, the plague was finally extinguished. Of the cases imported to the country districts none spread, and in other places, such as Parana, Rosario, and Monte Video, immunity was secured by a strict and vigilant quarantine. Assistance readily poured in from various quarters. Monte Video sent up 10,000*l.* for the poor; Brazil, Chili, and Banda Oriental were not behind, and in May last large sums of money, together with disinfectants and papers of advice from the sanitary authorities, were promptly forwarded from England to the desolated city.

More recently Dr. Scrivener has been sent over to Europe by the Government of Buenos Ayres to inform himself on all matters of hygiene likely to be of use in averting or combating any future outbreak of the disease. The causes of a mortality so disastrous would not seem far to seek: decomposition of animal and vegetable matters of the vilest description, under an almost tropical sun, poisoned drinking supplies, densely crowded and filthy fever nests, invited the outburst of epidemic disease, and fed it to the last; whilst an imperfect sanitary administration could but look on with dismay.

The losses from the plague were variously estimated at from 20,000 to 26,000, and at one time there remained but 40,000 people in the town, of whom 7,000 were sick, with a daily mortality of 600 or 700.

Such was the plague of the year just ended in Buenos Ayres. It will be well if a lesson has been learned, and a desire for sanitary improvements impressed deeply on the people.—*Food Journal.*

Editors' Book Table.

[NOTE. — All works reviewed in the columns of the CHICAGO MEDICAL JOURNAL may be found in the extensive stock of W. B. KEEN, COOKE & Co., whose catalogue of Medical Books will be sent to any address upon request.]

Injuries of Nerves and their Consequences. By S. WEIR MITCHELL, M.D., Member of the National Academy of Sciences; Fellow of the Philadelphia College of Physicians, etc., etc. Philad.: J. B. Lippincott & Co. 1872.

Lectures on Aural Catarrh; or the Commonest Forms of Deafness and their Cure. (Mostly delivered at St. Mary's Hospital.) By PETER ALLEN, M.D., Fellow of the Royal College of Surgeons, Edinburgh; Member of the Royal College of Surgeons, England; etc., etc. New York: Wm. Wood & Co. 1872.

Memoranda on Poisons. By the late THOMAS HAWKES TANNER, M.D., F.L.S. Third and completely revised edition. Philad.: Lindsay & Blakiston. 1872.

Dr. Rigby's Obstetric Memoranda. Fourth edition, revised and enlarged. By ALFRED MEADOWS, M.D., Physician to the General Lying-in Hospital, and to the Hospital for Women, etc. Philadelphia: Lindsay & Blakiston. 1872.

The Treatment of Venereal Diseases. A Monograph on the Method pursued in the Vienna Hospital, under the direction of Prof. Von Sigmund; including all the formulæ. By M. H. HENRY, M.D., Surgeon to the New York Dispensary Department of Venereal and Skin Diseases; Fellow of the New York Academy of Medicine, etc., etc., etc. Adapted and arranged from the German. New York: Wm. Wood & Co. 1872.

PAMPHLETS.

Annual Address. Delivered before the Cleveland Homeopathic Hospital College, February 14th, 1872. By J. D. BUCK, M.D., Professor of Psychology.

Seventh Annual Report of the Institution for the Education of Feeble-Minded Children. Located at Jacksonville, Illinois. December, 1871.

Remarks on Strictures of the Urethra of Extreme Calibre, with Cases, and a Description of New Instruments for their Treatment. By F. N. OTIS, M.D., Clinical Professor of Venereal Diseases in the College of Physicians and Surgeons, New York, etc. Reprinted from the New York Medical Journal, February, 1872.

On the Physiology of Syphilitic Infection. By FESSENDEN N. OTIS, M.D., Clinical Professor of Venereal Diseases at the College of Physicians and Surgeons, New York; etc., etc. Reprinted from the Medical Gazette.

Report of the Meeting for the Organization of a Territorial Medical Society, held in Denver, Colorado, Sept. 19, 1871, including Constitution and By-laws adopted by the meeting.

The Mysterious Death of Margaret Campbell critically examined; with a Review of the Testimony, Verdict of the Jury, Comments of the Press, etc. Exitus acta probat, (Ovid.) By T. D. CROTHERS, M.D., Member of the Albany County Medical Society, etc.

Proceedings of the Twenty-first Annual Meeting of the New York State Homeopathic Medical Society. Held at Albany, N. Y., on Tuesday and Wednesday, Feb. 13 and 14, 1872.

The Ethics of the Medical Profession. Read before the Sacramento (Cal.) Society for Medical Improvement. By JOSEPH F. MONTGOMERY, M.D.

Irrigations of Ice Water as a Means of Arresting Hæmorrhage in Cases of Placenta Prævia. By W. O. BALDWIN, M.D., Montgomery, Ala. 1872.

Lithotomy and Lithotrity. Illustrated by Cases in the Practice of GURDON BUCK, M.D., Visiting Surgeon to the New York Hospital and Presbyterian Hospital, etc. New York, 1872.

Editorial.

Hereafter—

The JOURNAL will be provided with an ample proportion of Editorial and Original Communications. Owing to causes over which we had no control, the present Number goes out with little save selected matter. The monthly issue is within a few days of date, and from and after this month it will be promptly on time.

Especial pleasure would be given both editors and readers, if many new correspondents would volunteer from among our numerous, intelligent and experienced subscribers.

Items, News and Gossip.

[We are indebted to "*The Doctor*," (London, Eng.) for the following items.—Ed.]

In the *Riv. Clin. di Bologna*, February, 1872, Dr. Bonfigli mentions that Jones recommends belladonna in gradually increasing doses in spermatorrhœa. Atropine is recommended by Hosch in many cases of myopia. Philipson recommends belladonna in constipation.—Echeverria and MacDonald recommend conium as the best narcotic remedy for epileptics. The juice of the fresh plant is used.—Mr. Veagh considers datura tatulæ the best remedy for asthma, far better than stramonium.—Dr. Reichard, of Riga, has found chloral hydrate of great use in cholera; four grammes of chloral produced sleep in a few minutes, and the patient recovered. —Dr. Lutz has found great benefit from the use of bromide of potassium in epilepsy. His doses are large, from 10 to 20 grammes daily. No great inconvenience has been produced, except some few papules on the skin. In one case of nocturnal incontinence of urine, it was very useful. Dr. Northrop says that a gramme of this salt every hour will get rid of tape-worm.—Dr. Palmberg has used ergot of rye with success in three cases of chronic diarrhœa. To children he gave 50 centigramme doses of the ergot in watery extract in the day; to adults he gives 1.20 grammes.—Dr. Vance alleges that he has obtained cures in some cases of palsy by the subcutaneous injection of strychnine, in the dose of five millegrammes of the phosphate.——In the *Med.-Chir. Centralbl.*, 1871, Dr. Hemard asserts that for the last twenty years he has obtained the cure of soft and hard sores of venereal ulcers by simply irrigating the parts with cold water. A vessel of cold water is fixed to the walls of the room, at such a height that the water which comes from it through a tube, attains a certain force of projection. The patient has no more to do but to wash his ulcers every three or four hours under this stream; in a few days the ulcer becomes clean, and quickly heals. All other treatment is superfluous. In ulcers of the prepuce, which are out of sight, after irrigation, a little starch flour is introduced. When the superficies of the ulcer has lost its characteristic aspect, a stratum of collodion is painted on it,

and it soon heals. —— Dr. Poggi, writing to Dr. Scarenzio (*Giornale dell. Mall. del. Pel.*), says that in his wards a man, C. V., soldier in a cavalry regiment, entered in August, 1870, with syphilitic ulcerations and mucous patches in the fauces. Three calomel injections were practiced with the syringe; the first on 26th August; the second on 5th September. An abscess succeeded to each injection, which opened spontaneously; but the cure was complete on the 6th December.—P. V., a soldier, in the same regiment, entered hospital the 18th November, 1870, for mucous papules (some months after being attacked with indurated sore on the penis). Injection of calomel was used on the 26th November. An abscess after this was opened 6th December. The mucous papules disappeared without any further treatment, and he left completely cured in January, 1871.—C. A., a soldier in the same regiment, entered hospital 29th November, 1870, for scattered papular syphilis over the whole body. The first injection was made on December 1st. The abscess formed on the 6th day, and as it was very painful (indeed, an exceptional affair), it was opened on the 8th. This, too, had the appearance of sanguineous abscess. He got perfectly well without any other treatment and left hospital 4th January, 1871. In three cases the dose of calomel was 25 centigrammes (about four grains), and the injection was made at the external and posterior aspect of the arm, and external aspect of the thigh.—T. P., a soldier, entered hospital for indurated ulcers on the glands and inguinal buboes, 24th August, 1869. The bubo suppurated, and then followed sinuous abscesses which required numerous incisions. Injections of calomel suspended in mucilage of gum arabic were made use of in doses of 30 centigrammes (5 grains). The first on the 3rd October, 1869; the second on the 7th October; and the third on the 22nd of the same month. He left completely cured on the 26th March, 1870. The long duration of treatment was caused by the loss of substance in the soft parts. In this case the abscesses were all open, and washed with solution of sublimate, 15 centigrammes to 300 grammes of distilled water. —— In the *Pabellon Medico* a case of scarification of the os uteri is mentioned where Dr. Cortejarena succeeded in notably alleviating symptoms of congestion of the cervix uteri by scarifying the cervix, instead of applying leeches. We notice that Lister's plan

of dressing wounds is in favor with Spanish surgeons. —— Prof. Bolkin, in the cholera epidemic which took place in St. Petersburgh in 1871, made use of the sulphate of quinine, which he administered in doses of 20 to 30 centigrammes at a time, three or four times a day, and even more frequently if the substance was vomited; in many cases he also made use of a subcutaneous injection of the remedy. After using this remedy the mortality among his patients fell to 17.3 per cent. —— Betz regards nitrate of silver as the best remedy for bed-sores. Instead of making use, however, of lint dipped in the solution of lunar caustic, he prescribes an ointment composed of five decigrammes of the nitrate of silver, fifteen grammes of lard, and thirty of wax; which he spreads on linen, and applies to the sores, taking care that the piece is rather larger than the sore. This is repeated morning and evening. —— Dr. George D. Hodge remarks in the *Georgia Med. Companion* that our best iron compounds are those having the *red oxide* as their base; and especially is *this* true when our aim is the restoration of impoverished blood. In *this* consists the efficacy of most mineral waters, as well as the advantages of the oxysulphates, over many others. The first formula is no *novelty*, but was used by Sylvester sixty years ago. It is: R. Crystallized Sulphate Iron, dr. ijss; Nitric Acid, dr. iij; Pure water, oz. iss. Stir well the iron and acid, by constant rubbing in a glass mortar, for at least twenty minutes—gradually add the water, and filter through white filtering paper. The result is a clear limpid fluid, which may be given in doses of from five to ten or fifteen drops, twice daily, in a little water or infusion of quassia—is easily prepared, and will be found, for general use, preferable to the muriated tincture of the shops—harmonizes chemically with, and confers solubility on quinine, sulph. magnesia, etc., and may be relied on as one of the very best restoratives for debility and torpor of the liver, following successfully treated cases of hepatitis or miasmatic fevers, in which the biliary organs have suffered. In malarial diseases, Dr. Hodge recommends: R. Sulph. Quinine, grs. xxx; Liq. Oxysulph. Iron, dr. j; Fowler's Sol., dr. j; Water, oz. ij. M. S. A teaspoonful thrice daily, after meals, occasionally adding a small dose of sulph. mag. to obviate costiveness. The iron and arsenic may be varied to meet the leading indication: R. Spts. Mindererus, oz. ij; Liq. Oxysulph. Iron, dr. j. M. This gives a beautiful florid mixture—

palatable, and in doses of a teaspoonful or so, thrice a day, not apt to disappoint as a general tonic. The ammonia promotes the action of the iron, and imparts to it a decided *capillary and renal tendency*. We have found the liquor oxysulph. in doses of from three to six minims with a drachm or two of the liquor ammonia acetat. every three or four hours, a valuable remedial agent in combating the forming stages of tonsilitis, scarlatina, typhoid fever, and puerperal inflammations. In these affections, I am convinced of the efficacy of this combination as superior to the mur. tinct. used in the same way. R. Iod. Pot., grs. xxx; Liq. Oxysulph. Iron, dr. ij; Simple Syrup, oz. j and dr. ij. M. Dissolve the iodide in the syrup and add the iron. This syrup is of a beautiful red color—will keep without deposition for years, and is a *most excellent tonic and alterative* in doses of 20 to 60 drops twice a day. We will close by adding, if the brom. pot. or brom. ammonia be substituted for the iodide (correspondingly as to quantity) in the above formula, a rich golden-colored compound will result, and prove itself on trial a remedy of the first class in all anæmic, chlorotic and nervous conditions resulting from uterine affections or otherwise. —— It is reported, says the *Medical and Surgical Reporter*, that distillers are experimenting with a process for making spirits from fermented garbage. This repulsive matter is placed in water-tight vats and boiled for several hours, the grease is then carefully skimmed off for soap-making purposes, and the remaining mass is fermented and distilled. The refuse is used as manure. It is stated that a barrel of garbage yields three pounds of soap grease and four gallons of proof spirits. —— Dr. Cowran, in his *Medical History of the Himalayas*, speaking of a native tribe in the northern district of the peninsula, says, when a mother goes into a field to work, or is otherwise unable to take her child with her, she selects some sheltered spot near a stream, in which she places a little straw for a bed for her infant, and then directs, by means of a piece of split bamboo, a current of water, of from one to two or three inches in diameter on its uncovered occiput and temples. This produces a soporific effect, which generally lasts as long as the water continues to flow. The sleep is said to be very soothing, and children who have been much subjected to its influence are known to have been unusually free from the annoyances incidental to the period of dentition. —— At the Central Medical Society of

New York, Dr. Weed lately presented a paper on the treatment of hæmorrhage of the bowels in typhoid fever, in which he referred to the grave complication of this hæmorrhage and its cure. It might be affirmed that in an exhaustive fever this symptom was an alarming one. It had occurred even in convalescence; various astringents had been recommended, but their operations were not always satisfactory. He gave the history of a case where blood was passing largely, and the prognosis was most unfavorable. The styptic properties of the oil of turpentine occurred to him, and he resolved to give it a trial; he gave teaspoonful doses repeated twice in thirty minutes, and then in smaller quantities, as the cases seemed to require; several other cases of a similar and very severe character, in which turpentine had always been given with *complete success*, were related. —— Dr. Eldridge says he has invariably cured mumps, even when *orchitis* had taken place, with an emetic, in twelve, fourteen or twenty-four hours! He never knew the emetic to fail! —— Dr. Moore, at the last session of the New York Med. Society, related a case where the condition of *albuminuria* was removed by the cathartic treatment. He had previously advocated cathartics, especially Epsom salts. Dr. Benedict gave the history of a case of similar character; the patient had been going rapidly downward, and he had almost given her up, when he heard the recommendation of Dr. Moore, and immediately gave her the remedy, and found relief from her dropsy and the difficulty of breathing she had experienced. In the course of six or seven days the dropsy had ceased, and the traces of albumen were less marked. She omitted the salts for a time, and was taken care of by a physician of Utica, who treated her differently. Her symptoms returned, and again Dr. Benedict treated with the salts, and found marked relief, but she was finally worn out and passed away. Dr. Campbell had two cases, one of which had been treated after Dr. Moore's plan. Sulphate of magnesia he thought had driven away the presence of albumen, but severe headache had continued; in the seventh month she had been taken with convulsions; he had put her under the influence of chloroform for three or four hours, and he had given all the sulphate of magnesia she could take; she continued through the day unconscious and no convulsions, and the next day seemed to be improving, but some shocks occurred. The test showed two-thirds albumen; coma occurred;

one hand and foot were not used by the patient; artificial delivery followed, when she sank and died in a comatose condition. Dr. Mowris inquired whether this treatment had been successful after scarlet fever, and Dr. Moore replied in the affirmative. —— Dr. Byrd, Professor of Obstetrics in Washington University, once more raises the banner of bleeding, and says the practice is more satisfactory than any other. Indeed, he asserts in the *Medical and Surgical Reporter* that in *all* inflammatory diseases it is the most scientific and efficient agent, and that the necessity for it is as great at the present time as ever it was in the past. In certain conditions of the brain found in most cerebral diseases it is, we think, not only indispensable, but the only remedy necessary. —— In one of the papers on "Phthisis Pulmonalis," which recently appeared in the columns of the *Medical Press and Circular*, Dr. R. Locke Johnson speaks of the *increased tendency* of patients to hæmoptysis, during the spring time and the early summer time. Having for some years past made observations on this point, he has occasionally been enabled to retard altogether or to lessen this lesion, by attending closely to the secretions, the skin, and the pulse of his patients. —— At a recent meeting of the Societe de Chirurgie, Paris, M. Trelat related (*British Medical Journal*) a case of sudden death caused by the intrusion of air into the veins. M. Trelat was in the act of removing a submaxillary tumor when suddenly the patient changed color and the heart sounds ceased. Artificial respiration and electrization of the phrenic nerve induced a few respiratory movements, and a slight return of color appeared after this treatment had been persisted in for fifteen minutes. The necropsy revealed the partial division of a small vein which opened into the external jugular. There was an oblong clot in the jugular segmented by air blebs. Bubbles of air were also found in one of the mediastinal veins, the posterior cardiac vein, and a notable quantity was also found in the right cardiac cavities. Chloroform had been administered, so the question raised was if death might not be attributed to that drug. M. Perrin and M. Marc See considered such to be the case. M. Giraldes believed entrance of air into the veins acting with the chloroform produced the fatal result, and stated that in three cases of death from chloroform he found the presence of gases in the

heart of each case. In the vena cava, and even in the veins of the pelvis, M. Roux had made a similar observation, but M. Depaul pointed out that the air in this case occupied only the veins going to the heart and the wounded vein. The employment of artificial respiration by means of a tracheal catheter and bellows was advocated by M. M. Perrin and Depaul. —— Dr. Grimshaw (*British Medical Journal*) states that he considers *pressure* is the main point to be relied on—by lessening the vascularity of the part and preventing the maturation of the pustules—in cases where pitting from small-pox is feared. Strapping, in parts where it may be possible to do so, answers this purpose fully, and the next best thing to strapping is to employ xylonite, a collodion which, although somewhat elastic, quickly forms—when employed over the cuticle —a dense and tight skin, more dense, tight and tenacious than the collodion of the *Pharmacopœia*. It acts like strapping, and produces abortion of the pustules. To parts of the face where strapping cannot be employed with advantage, xylonite will be found to be the next best mode of treatment. The late Dr. Graves remarked that in a patient whose knee had been strapped for a surgical operation being attacked by small-pox, the portion over which the strapping extended was free from even the rash. —— At a recent meeting of the Pathological Society of London, Dr. Thorowgood exhibited for Dr. R. Locke Johnson, two gall stones removed from a female patient æt. 67, and who had suffered no inconvenience from their presence during her lifetime. They completely occluded the gall bladder, assumed its shape, were composed principally of cholesterine, and weighed at the period of removal 580 grains, the larger one weighing 420 grains. Probably these are the largest gall stones ever removed from a female patient. —— M. M. Mouttet and Rosiere, of Montpelier, report that they have cured croup, when tracheotomy was refused by the parents as a useless cruelty, by repeated insufflations of powdered nitrate of silver. The application was at once followed by the detachment and expulsion of false membrane, and was repeated a quarter of an hour after with a similar result. Three or four hours later another insufflation was followed by so much relief that hope was entertained, and the child from this time made a steady recovery. —— Dr. Wilks, of Guy's, in a paper in the *Lancet*, indorses the conclusions lately published by Dr. Handfield Jones, in reference to the production

of epilepsy and other nervous diseases by the abuse of alcohol. Dr. Wilks has met with cases where the alcohol, acting chiefly on the spinal cord, made paralysis the leading symptom, and he combats, in his own trenchant style, the notion that it is not safe to suddenly leave off the accustomed stimulus. "No harm," he says, "but only good will ensue from its withdrawal." He considers that the same rule should apply to all persons. Some striking cases are mentioned, in which the absolute and instant withdrawal of alcohol snatched the patients from the very jaws of death. One was a professional man, who, after drinking hard, became so ill that he took to his bed, had epileptiform attacks, ate nothing, and was constantly retching, his wife standing over him administering brandy and champagne from time to time to keep him alive a little longer. Dr. Wilks succeeded, after several attempts, in inducing his wife and two medical attendants to stop every drop of alcohol. When this was done, the patient soon cried out for drink; but, after imploring in vain for some time, he was violently sick, and then sank into a sound sleep. Upon waking he took a little beef-tea, in a few hours ate some solid food, and within a week was back again in his practice. The purport of Dr. Wilks's paper is to draw attention to the fact of paralysis, and more particularly spinal paralysis, occurring as a result of alcoholism; and therefore that when a medical man is called in to see a case of this kind, he should remember intemperance in drinking as a possible cause, just as he would if he found an enlarged liver. If the affection should turn out to be in any way peculiar in its pathology it will certainly deserve a distinct appellation; but even should the morbid changes in the cord, together with the resulting symptoms, resemble what is seen in other forms of paralysis, he would still recommend the adoption of such a term as alcoholic paralysis as significant of its cause, for we are warranted in so doing by the use of the expression puerperal, syphilitic, or uræmic epilepsy (eclampsia) in reference to the origin of the fits when arising under special circumstances. —— In an abstract of a clinical lecture at Cambridge, on the early diagnosis of typhoid, published in the *Lancet*, Dr. P. W. Latham insists on the value of the thermometer, observing that during the first four or five days the general symptoms which may then accompany the disease—viz., the rigor, the languor and feebleness, headache, epistaxis, giddiness,

pain in the back and aching of the limbs, the appearance of the tongue, the state of the bowels, the condition of the urine, etc.—may not be very distinct, or any one of these morbid symptoms may be entirely absent. In a considerable number of cases, in fact, it would be impossible to say, without using the thermometer, whether the patient were suffering from typhoid fever or not. But the thermometric course of the disease at this time, unless it supervenes on some other malady, is very regular; and by taking the temperature at 8 A. M. and 6 P. M. for three days the presence of typhoid fever may be decided. On the other hand, one single observation may, with very great probability, negative the existence of the disease. The following is the formula (from Wunderlich) of this initial stage: 1st day, morning, 98.6° F., evening, 100.4° F.; 2nd day, morning, 99.4° F., evening, 101.4° F.; 3rd day, morning, 100.4° F., evening, 102.6° F.; 4th day, morning, 101.6° F., evening, 104° F. If, then, a person, previously quite well, feels uneasy, perhaps has a rigor, and in the evening we find his temperature about 100.4° or 101° F., falling the next morning about a degree, rising again in the evening, and approximately following the above course, the disease may be diagnosed with tolerable certainty. On the other hand, the disease is not typhoid fever if (1) on the second, third or fourth evenings the temperature approximates even to normal (98.6° F.); (2) if during the first two days the temperature rises to 104° F.; (3) if between the fourth and sixth days the evening temperature of a person under middle age does not reach 103°; (4) if the temperature on two of the first three evenings is the same; or (5) if it is the same on the second and third mornings. From the fourth to the tenth day the evening temperatures are tolerably uniform, the highest being most generally on the evenings of the fourth, fifth or sixth days, and reaching from 104° to 105.5° F., or even higher. The morning temperatures are from 1° to 2.6° F. lower than the evening ones; on the fifth, sixth and seventh days, the variations between the morning and evening temperatures being less than take place from the sixth or seventh to the ninth or tenth days. During this period (from the fourth to the tenth or twelfth day), if the general symptoms are obscure, an absolute diagnosis may not be readily made, and the disease may be confounded with several others, unless thermometric observations extend over several days.

Loot.

On Arterial Transfusion of Blood.

Professor Hueter recorded some time ago a case of poisoning with carbonic oxide, in which he preserved the life of the patient by transfusion. More recently, in the *Centralblatt*, he has recommended the same, on the ground of the successful issue of three cases where healthy blood was injected to remove the symptoms accompanying intense septicæmia. Hueter pursued in these cases not the usual plan of injecting venous blood into a vein, but that of injecting the venous blood of a healthy man into the *artery* of the invalid. He performs the operation in the following way: During the defibrination of the blood by beating and filtration through a piece of fine muslin by assistants, he exposes the radial artery or the tibialis posticus, above the malleolus internus, the latter being just as easy to find as the former. Any slight hæmorrhage is carefully arrested, and a very small opening is made in the sheath of the artery, which is separated from the adventitia; a sound is then pushed under the artery, and moved hither and thither, till about two and a half centimetres of the artery are isolated. Four pieces of strong silk are now passed beneath the vessel, of which one forms a reserve ligature. The silk nearest to the heart is now tied tightly, so as to prevent all entrance into the vessel of bloo coming from the heart. The injection syringe is now filled, and the lowermost silk slightly pulled, so as to stretch the vessel. An opening is now made in its upper part, by cutting it about half through transversely with scissors. The canula is introduced, and secured by the third thread. The tension hitherto kept up on the lowermost silk is now relaxed, and the injection begun to be forced in. When the injection is completed, the lowermost thread is tightened, and the piece of artery between the two ligatures excised. The wound is simply dressed. The principal difficulties of the operation are its complexity, and the necessity that exists of maintaining a considerable pressure on the piston to overcome the cardiac pressure. On the latter ground Hueter recommends the employment of Mosler's injection syringe, in which the piston works with a screw.

In Hueter's opinion, the objections are far outweighed by the advantages which arterial transfusion affords. One of these advantages is, that the blood reaches the heart more slowly, and with greater steadiness and regularity, than by venous transfusion. He regards the injection of small quantities (two, three or four ounces) as useless; in most instances from eight ounces to one pound being

requisite. But if so large a quantity be suddenly thrown upon the heart, as occurs in injection by the veins, a fatal arrest of its activity may occur. It must be remembered, also, that in consequence of the bleeding prior to the injection, as much unhealthy blood is removed as good is introduced from the system. Another advantage attendant on the arterial injection is security against the introduction of air; any small quantities that may be introduced being rapidly absorbed during the passage of the blood through the capillaries. By this method, also, all danger of phthisis is avoided, which, in many instances, when transfusion of the veins would otherwise have proved successful, has led to the death of the patient.

It has not yet been ascertained whether the contact of a large quantity of blood, rendered arterial by whipping, with the waste of the right heart, is of any real advantage. In the mode of transfusion by the arteries, the blood necessarily becomes venous during its passage through the capillaries.

In conclusion, Prof. Hueter observes that transfusion, whether performed through the veins or arteries, constitutes a weapon against diseases which can in no other way be contested, and points out the excellent results we may anticipate from its employment.—(*Aerztliches Literaturblatt*, No. 6, 1871, and *Langenbeck's Archiv.*, 1870.)—*Practitioner*, Nov., 1871.

Treatment of Small-Pox.

Dr. Stokes read a communication to the Dublin College of Physicians on the treatment of small-pox, especially considered with a view to the prevention of pitting after the disease. He pointed out that the existence of the present epidemic was a sufficient answer to the assumption that small-pox had been stamped out in Ireland. In his opinion another example of the change of type in disease—an asthenic form of zymotic affections having taken the place of their previously existing asthenic character—was afforded in the instance of variola. He believed that the liability to pitting was greater in asthenic than in typhoid cases, and in searching for a reason he had found that the tendency to pit depended mainly on the degree of vascularity of the skin. The indications to be fulfilled in the attempt to check or even entirely to prevent the occurrence of this unpleasant consequence of small-pox, were three: 1, The exclusion of air; 2, the maintenance of the parts affected in a moist state; and 3, the alleviation of local irritation. All these indications were satisfied by the repeated application of soft linseed-meal poultices to the face, which was the part most exposed to the air, consequently the most dry, and lastly the most highly vascular.

Dr. Stokes cited a remarkable case which exemplified the good effect of local depletion of the face by leeches, in preventing the development of pustules and the formation of pits. A young girl was admitted to hospital with every symptom of most intense pyrexia, including terrible headache. So urgent was the last-named symptom, that leeches were applied to the temples in considerable numbers. Two days afterward a dense crop of small-pox vesicles sprang up all over the body and extremities, and soon became confluent, while on the face and neck only a few aborted pustules made their appearance.

If it were required to carry out the indications already alluded to in the case of the entire body, the treatment proposed by Hebra, of continued immersion in a warm bath, was invaluable. In the Meath Hospital a patient at death's door in small-pox, his body being a mass of foul, fœtid and reeking sores, was plunged into a bath and kept there for seven consecutive hours. All delirium ceased at once, the sufferer's torture was at an end, and he quickly became convalescent.

He concluded by giving his hearty testimony of approval of the method introduced by Hebra, pointing out its freedom from danger, the possibility of administering nourishment and stimulants to patients while in the bath, and the fact that the relief given in the most severe confluent cases was at once immediate and permanent.—*Philadelphia Reporter.*

The Bavarian Method of Treating Fractures.

Dr. Corley describes the Bavarian method of treating fractures. The advantages of this plan were plainly these:

The necessity for splints was dispensed with; daily inspection of the injured limb was permitted; the period during which the patient was confined to bed was considerably shortened; and the apparatus was very easily applied, and still more readily taken off. The method was carried out in the following way: A flannel roller, consisting of two pieces of flannel of the length of the affected limb, and stitched together posteriorly, was first placed beneath the limb, in such a way as to bring the line of stitching into correspondence with the middle line of the extremity. It was then carried round the limb on each side and secured in front with long pins having their heads bent at right angles. Over the external surface of this first roller a mixture of plaster of Paris, in equal proportions, was rapidly smeared. A second similar flannel roller was then fastened over all, and secured by a modification of the ordinary many-tailed bandage. Dr. Corley had used this plan in twenty cases, including fractures of the upper and lower extremities, Potts's luxation, Colles's fracture, etc.

Women of India.

I shall be under no liability to exaggerate, (meaning, that to exaggerate the wretchedness of woman's condition there were impossible,) nor shall I make a single unsupported statement as to her condition.

The most ancient of human laws now extant, is the Institutes of Menu—the offspring of despotism and priestcraft—which has fixed the social condition of women in India from a thousand years before the birth of Christ; or four thousand years past.

1. Female Infanticide. Girls are not desired, not welcome. Ask a Hindoo, with six children, how many he has; and, if three are boys and three girls, he will answer, three. Seventy-seven per cent. of the females born in one tribe, by their own confession, had been murdered. In another, every girl born in their village, by their own confession, had been destroyed; and by whom was this work done? Generally, by the mother herself. Professing to open the fountain of life to her babe, she coolly and deliberately impregnates it with the elements of death; by putting opium on the nipple of the breast, the child, inhaling it with its milk, dies. These murders are sanctioned by the piety of Hindooism. How apt is the declaration of the apostle: "without natural affection."

Sometimes, a poor, sickly child is put into a basket, carried into the woods and suspended upon the limb of a tree; where, after three or four days, if the vultures, or ants, or beasts of prey have not devoured it, it is supposed the demon which caused the sickness has left it, and if alive, it is taken home.

Marriage and betrothal, with the Hindoos, mean the same thing. This takes place when they are children. The Hindoo Shasters say that a girl is marriageable when she is seven years of age, but she may wait till she is ten.

As soon as a little girl has reached her fifth birth day, her parents begin earnestly to seek a marriage settlement for her. The girl has no choice or voice in her destiny. She is never allowed to see or converse with the man who is to control her. Their law-giver Menu lays the duty upon the father of marrying his daughter before she is twelve years old, under awful penalties—like the guilt of murdering a Brahmin, which is the highest crime. In selecting a wife, Menu says, "She who is not descended from his paternal or maternal ancestors within the sixth degree, and who is not known by the family name to be of the same stock with his father or mother, is eligible by a twice born man" for nuptials and holy union. The phrase "twice born" refers to high caste men.

Then, as to families outside the pale of selection, Menu ordains, "In connecting himself with a wife, let him studiously avoid the ten following families, be they ever so great, or ever so rich in kine, goats, sheep, grain and gold: the family that has omitted prescribed

acts of religion; that which has produced no male children; that in which the Veda has not been read; that which has thick hair on the body; and those who have been subject to hemorrhoids, to consumption, to dyspepsia, to epilepsy, to leprosy, and to elephantiasis."

In this, Menu was not so bad, for, many children are born of diseased parents in Christian lands which might be avoided.

"A Brahmin should, according to law, marry a maiden about a third of his own age;" and "a Hindoo bride should not be over twelve years of age."

The chief thing to settle upon is her name, for wives there do not take the names of their husbands as they do here. There the wife is ever known only by her maiden name; hence the name is of vital importance, and the law generally prescribes as follows: "Let him not marry a girl with the name of a constellation, of a tree, of a river, of a barbarous nation, or of a mountain, or of a winged creature, snake, or a glove; nor with any name raising an image of terror. The names of women should be agreeable, soft, clear, captivating the fancy, auspicious, ending in long vowels, resembling words of benedictions."—*Rev. William Butler, D.D.* "*Land of the Veda.*"

Curiosities of Corns.

A curious fact is related of the Maine wood-choppers, who, in the winter months, while felling trees amid snow and ice, cannot wear close-fitting boots, but very large sizes, that allow their feet to slip to and fro, thus causing friction and warmth. But from this they have feet completely encrusted with corns. In the spring, when the raft goes down with their logs, they do not change their clothing or boots for weeks, until their arrival at the saw-mills. All the while, their feet have been saturated in water, and when the boots are removed, the corns fall off like nutshells from the kernel.—*Haney's Journal.*

How Crude Rubber is Collected.

Greytown, Nicaragua, is the principal port for the export of india-rubber on the coast. It is collected by parties of Indians, Caribs, or half-caste Creoles—seldom by Europeans—to whom the dealers, who are also storekeepers, advance the necessary outfit of food, clothing, and apparatus for collecting rubber, on condition of receiving the whole of the rubber collected at a certain rate. The rubber-hunters are termed *Uleros* (*Ule* being the Creole term for rubber).

A party of Uleros, after a final debauch at Greytown, having expended all their remaining cash, generally make a start in a

canoe for one of the rivers or streams which abound on the coast, and having fixed on a convenient spot for a camp, commence operations. The experienced rubber-hunter marks out all the trees in the neighborhood. The rubber-tree is the *Castilloa elastica*, which grows to a great size, being on an average about four feet in diameter, and from twenty to thirty feet to the first spring of the branches. From all the trees in the almost impenetrable jungle hang numerous trailing parasites, lianes, etc.; from these, and especially the tough vines, are made rude ladders, which are suspended close to the trunks of the trees selected, which are now slashed by machetes in diagonal cuts from right to left, so as to meet in the middle and central channels, which lead into iron gutters driven in below, and these again into the wooden pails. The pails are soon full of the white milk, and are emptied into larger tin pans. The milk is next pressed through a sieve, and subsequently coagulated by a judicious application of the juice of a Bejuca (an *Apocyna*) vine. The coagulated mass is then pressed by hand, and finally rolled out on a board with a wooden roller. The rubber has now assumed the form of a large pancake, nearly two feet in diameter, and about a quarter of an inch thick, on account of which they are termed *tortillas* by the Uleros; these cakes are hung over the side poles and framework which supports the *rancho*, which is erected in the woods, and allowed to dry for about a fortnight, when they are ready to be packed for delivery to the dealer.—*Scientific American.*

Lightning Stroke.

Dr. C. H. Alden, U. S. A., reports (Circular No. 3) a case, of which the following contains the essential outlines. E. W., aged 60, was struck whilst on horseback, and very shortly afterwards brought in. The horse was killed. The man was totally insensible but very restless, tossing, and resisting efforts to remove his wet clothing. His surface and extremities were cold, his pulse very small and feeble. There was a superficial, nearly vertical wound of the right scalp, looking as though made with a sharp point; a chain of large, irregular vesicated spots extended down the right ear over the neck, chest and abdomen, to the penis. There was also a similar spot on the right thigh, and superficial abrasions on both thighs. His felt hat was much torn and burnt on the right side, his pantaloons burnt corresponding to the thigh wounds; his shirt somewhat torn in front. He was wrapped in blankets, and whisky administered, which he swallowed without difficulty. In the afternoon slight vomiting occurred, and his pulse grew stronger and fuller. During the evening and much of the night, he was restless, muttering incoherently, and having involuntary passages. The next day his condition was much the same,

but he was quiet a good deal of the time, and his pulse fuller, surface warmer; a little fluid trickled from the right ear. Weak milk punch and beef-tea were ordered. In the afternoon he opened his eyes, looked round intelligently, but did not speak, and in a few minutes became again unconscious; at 7.30 P. M. pulse 72; respirations, 30; temperature, 97°. He died at midnight. Post mortem rigidity came on in five hours.

At the autopsy slight bloody infiltration of the muscles, below the scalp wound, was found. A very slight fissure was found inside calvarium, corresponding to the external wound. Between the bone and the dura mater was a firm, black, circular clot, one-fourth of an inch in thickness, and two inches in diameter; opposite the centre of the clot was a minute opening in the dura mater. The brain beneath the clot was disorganized for about two inches in diameter, and extending into the ventricle. Nothing else abnormal was anywhere discovered.

American Medical Association.

The Twenty-third Annual Session will be held at Philadelphia, in Horticultural Hall, Broad street, above Spruce, on Tuesday, May 7, 1872, at 11 A. M.

HOTEL ARRANGEMENTS.

Continental, Chestnut and 9th, $4 a day.
Girard, Chestnut and 9th, $3 a day.
La Pierre, Broad below Chestnut, $3 a day.
Colonnade, Chestnut and 15th, $3 a day.
St. Cloud, Arch below 8th, $3 a day.
St. Elmo, Arch above 3rd, $2.50 a day.
American, Chestnut below 6th, $2.50 a day.
Merchants, 4th above Market, $2.50 a day.
St. Lawrence, Chestnut below 12th, $2 a day.
Alleghany, Market below 9th, $1.75 a day.
St. Charles, 3rd below Arch, lodging only, 50 cents a day.
Miller's, 7th and Chestnut, lodging only, $1.50 a day.
Meals at restaurant of Horticultural Hall, and Petry's, N. W. cor. Broad and Walnut, each 50 cents.

BOARDING HOUSES.

318 South Broad, $2 a day; or $10 a week.
N. E. cor. Broad and Spruce, $1.50 a day; or $10 a week.
329 South Broad, $2 a day; or $10 a week.
1327 Spruce street, $2 a day; or $12 a week.
225 South Broad, $2.50 a day; or $12 a week.

RAILROADS.

Union Pacific, return free, if first-class tickets are bought, and an acknowledgment taken from the agent.
Cumberland Valley, excursion tickets.
Orange, Alexandria and Manassas, half fare for return.
Pittsburgh, Cincinnati and St. Louis, excursion tickets.
Pittsburgh, Fort Wayne and Chicago, excursion tickets.
Cleveland and Pittsburgh, excursion tickets.
Central Railroad of Georgia, return free.
Richmond and Petersburg, return free.
Wilmington and Weldon, excursion tickets, one fare.
Wilmington, Columbia and Augusta, excursion tickets, one fare.
Kansas Pacific, one and one-fifth fare for excursion.
Atlanta and New Orleans Short Line (A. and W. Pt. Western, Mobile and M. N. O. M., and Texas Railroads), return free.
Western and Atlantic, excursion tickets, one fare.
Western Alabama, excursion tickets, one fare.
Evansville and Crawfordsville, excursion tickets.
Lehigh Valley, excursion tickets, one fare.
Louisville and Nashville, excursion tickets.
Memphis and Louisville, excursion tickets.
North Pennsylvania, excursion tickets, two-thirds fare.
Pennsylvania Central, excursion tickets.
Philadelphia and Erie, excursion tickets.
Philadelphia, Wilmington and Baltimore, excursion tickets.
Philadelphia and Reading, excursion tickets at two-thirds.
Baltimore and Ohio, excursion tickets.
Lake Shore and Michigan Southern, excursion tickets if forty are taken.

WM. B. ATKINSON, *Per. Sec.*